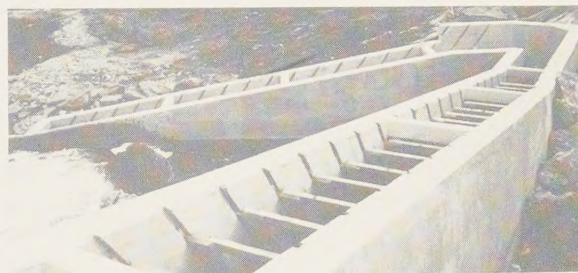


Grant-In-Aid for Fisheries 1990 Program Report



25 YEARS

of the
**ANADROMOUS
FISH
CONSERVATION
ACT**

1965 - 1990

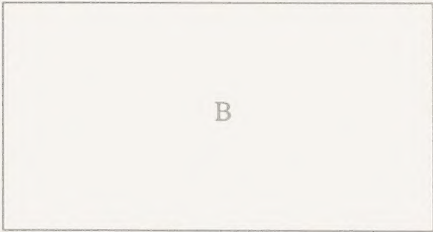


U.S. Department of Commerce

National Oceanic and Atmospheric Administration
National Marine Fisheries Service

The Cover:

Pictures are of selected activities funded under the Anadromous Fish Conservation Act, and were contributed by the Northeast Regional Office Grant Staff

ACB

- A . Status of stocks study, length and weight measurements of a coho salmon caught in the Lamprey River, NH.
- B . Tagging striped bass for tag and release study performed out of Salem , MA.
- C. Typical New England fish ladder, on the Royal River in Yarmouth, ME .

U.S. DEPARTMENT OF COMMERCE

Robert A. Mosbacher, Secretary

National Oceanic and Atmospheric Administration

John A. Knauss

Under Secretary for Oceans and Atmosphere

National Marine Fisheries Service

William W. Fox, Jr.

Assistant Administrator for Fisheries

GRANT-IN-AID FOR FISHERIES

1990 PROGRAM REPORT

25 YEARS

of the

Anadromous Fish Conservation Act

This report prepared by the

Grant-in-Aid Staff

of the National Marine Fisheries Service

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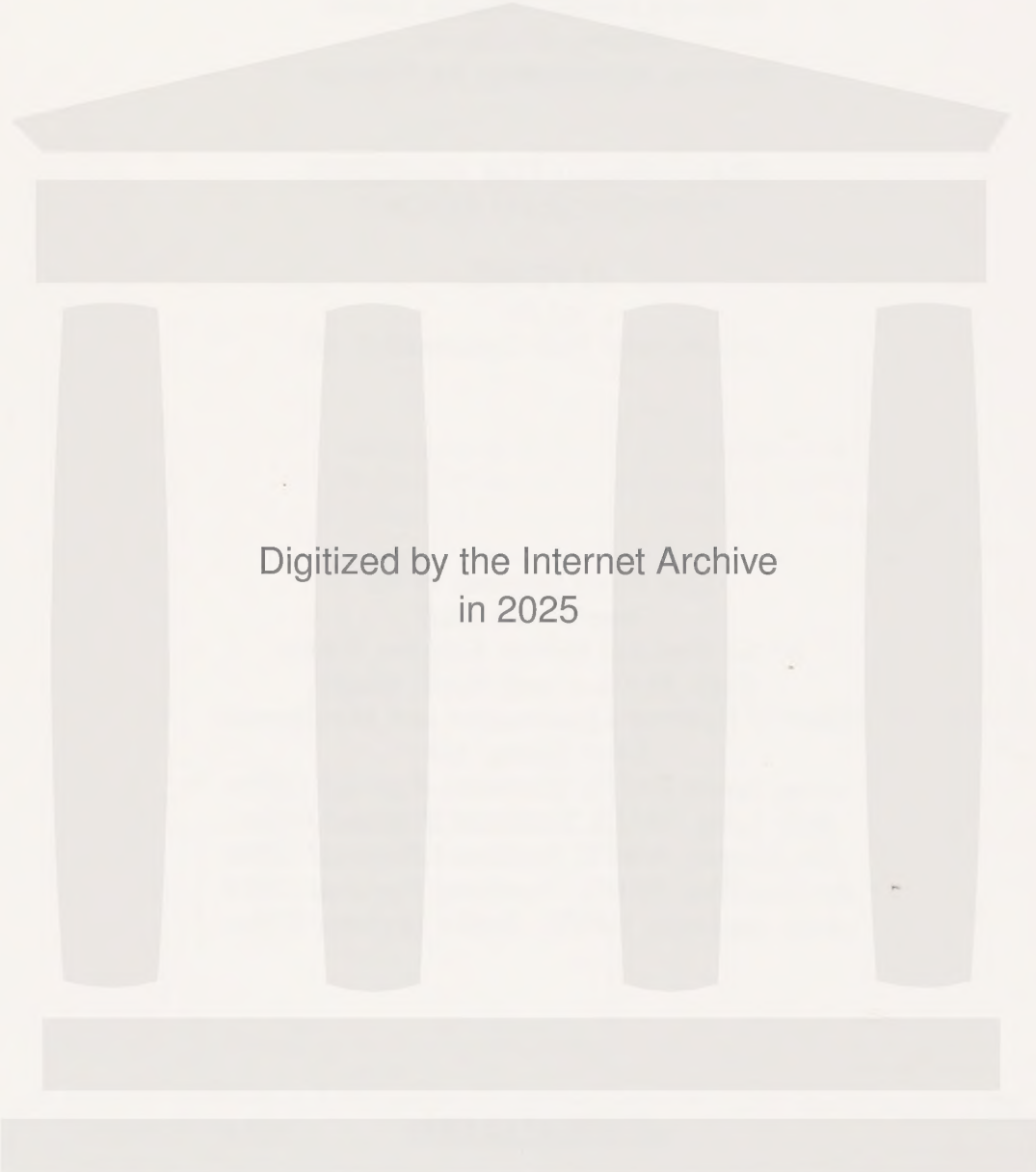
Jim Morgan, NMFS, Southwest Regional Office

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AUTHORIZATION

This report is submitted in compliance with the requirement of Section 9(a) of the Fish and Wildlife Act of 1956, as amended, 16 U.S.C. 742d(7) and Section 2 of the Anadromous Fish Conservation Act of 1965, as amended, 16 U.S.C. 757b and Section 307 of Title III of Public Law 99-659, the Interjurisdictional Fisheries Act of 1986.



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GRANT-IN-AID FOR FISHERIES

PROGRAM ACTIVITIES 1990

INTRODUCTION

This is the 22nd edition of program activities published under the Grant-in-Aid for Fisheries Program of the Office of Fisheries Conservation and Management, National Marine Fisheries Service (NMFS). The information contained herein is a summary of the projects that were ongoing or completed during fiscal year 1990. The NMFS Grant-in-Aid Program is authorized under two Acts: *the Interjurisdictional Fisheries Act of 1986 [(IJ) (Title III of Pub. L. 99-659)] and the Anadromous Fish Conservation Act [(AFC) (Pub. L. 89-304)]*. While descriptions of both programs follow, it is timely to acknowledge the importance of the Anadromous Fish Conservation Act, now in its 25th year of funding.

Funding under this Act has helped to forge a strong state/federal bond in the understanding and management of anadromous resources. Over the past 25 years almost \$60 million has been appropriated to states and interstate marine fisheries commissions for construction of fish passage facilities around stream blockages and research on spawning, recruitment, and migratory behavior. Species of interest have included salmonids, alosids, sturgeon, striped bass, smelt, and walleye. In 1979, the Act was amended to create Section 7, which authorized the Emergency Striped Bass Study. Section 7 provides an additional level of funding for research on the cause or causes for the decline of striped bass stocks. Projects funded under the Anadromous Fish Conservation Act continue to provide invaluable information necessary for management decisions made by the states, NMFS, interstate marine fisheries commissions, and fishery management councils.

In fiscal year 1990, \$2.7 million was made available to the states and commissions (Atlantic States Marine Fisheries Commission, Gulf States Marine Fisheries Commission, and Pacific States Marine Fisheries Commission) which are actively involved in managing anadromous species. Along the east and Gulf coasts, striped bass and the alosids were the primary species funded. Striped bass activities exceeded \$337,000 and alosid activities exceeded \$505,000. Along the west coast, approximately \$1.9 million was spent on salmonid research and management projects.

1. The Anadromous Fish Conservation Act of 1965 (Public Law 89-304, as amended)

This law authorizes the Secretary of Commerce and the Secretary of Interior to enter into cooperative agreements with States and other non-Federal interests for the conservation, development, and enhancement of the anadromous fishery resources of the Nation and the fish in the Great Lakes and Lake Champlain that ascend streams to spawn, and for the control of the sea lamprey. The program is administered at the Federal level jointly by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service. The amount of Federal funds that may be used to finance projects varies; for most, Federal funds provide 50 percent of the cost, but Federal funds can support 66.7% of projects when two or more states cooperate or 90% when the projects support an interstate fishery management plan. State fishery agencies, colleges, universities, private companies, and other non-Federal interests in 31 States bordering the oceans and the Great Lakes may

participate under the Act. All projects must be coordinated with the State fishery agency concerned. The authorization for this Act was renewed November, 1990 by Title IV of Pub. L. 101-627. This reauthorized up to \$8,000,000 for fiscal years 1990-1995, under Section 4. The Emergency Striped Bass Research Study, Section 7, was re-authorized for fiscal years 1984-1991 at \$1 million each year by Pub. L. 100-589.

2. The Interjurisdictional Fisheries Act of 1986, Title III of Public Law 99-659. (IJ)

The Interjurisdictional Fisheries Act (Act) is a formula-based financial assistance program, with two overall purposes: (1) to promote and encourage State activities in support of the management of interjurisdictional fisheries resources, and (2) to promote the management of interjurisdictional fishery resources throughout their range. Any state may, either directly or through its interstate commission, submit a research program which supports management of fishery resources a) for which a fishery occurs in waters under the jurisdiction of one or more States and the Exclusive Economic Zone; b) for which there exists an interstate fishery management plan; or c) which migrate between the waters under the jurisdiction of two or more States bordering on the Great Lakes. Federal funds up to 75 percent, or 90 percent when States have adopted fishery regulations which are consistent with an interstate or Federal fishery management plan for the species to which the study applies, may be used to finance project costs. Projects to restore resources damaged by natural disasters or to enter into enforcement agreements may be financed 100 percent with Federal funds. A funding level of \$8,000,000 was authorized through 1995 for grants under Section 308(a). Section 308(b) is designated to alleviate resource disasters, however no funds have been appropriated for resource disasters since fiscal year 1988. Through fiscal year 1993, an additional \$350,000 has been authorized under Section 308(c) to support the development of fishery management plans by the three Interstate Marine Fishery Commissions. Funds are made available to the States based on an apportionment formula. However, since this is a relatively complicated formula, further explanation is not included here, but is included in the implementing regulations. A copy is available from any of the grant coordinators listed at the front of each section.

The Act allows a state to use up to \$25,000 of its regular apportionment to carry out an agreement with the Secretary of Commerce or the Secretary of the Interior for mutual enforcement of state and Federal laws pertaining to the protection of fishery resources. During FY 1989, three states (New Jersey and Rhode Island, and Mississippi) took advantage of this opportunity.

This law also allocates funds specifically to the three interstate marine fisheries commissions for the development of interstate fishery management plans. In 1990, \$110,000 was available to each commission for this purpose, with no matching requirement. See the index for a more complete listing of program areas.

A large portion of funds expended under the IJ are spent on obtaining information on fish stocks. These projects are listed under the headings of statistics or stock assessment. Both of these activities support the management of fisheries resources. Management decisions would be less precise without the information gathered from these studies.

On the following page, the **Apportionment of Federal funds by State and Authorization** shows the breakdown of funds made available to the states, and other entities under both Acts. The amount listed under the IJ is the state allocation under the apportionment formula; it is not necessarily the amount the state, entity or Commission actually receives in any fiscal year, nor do all states qualify to receive the money. Each state must meet the requirements of the Act to qualify for funds and each project must further meet certain requirements. Under the AFC only states that are involved in the conservation and management of anadromous fisheries receive funds; therefore, there are many states that show no funds received.

The Program Analysis Section (page 5), is divided into five sections, one for each of the five NMFS Regions. Project entries include information regarding a given project. Each section contains a contact for the Region and an alphabetical list of those states in that region. Preceding the project descriptions, is an overview (Highlights) of the region's grant activity during the year, and includes descriptions of ongoing and completed projects. The program analysis includes a brief project description, the funding source, the project number, the principal contact, and the status of the project, ongoing (years) or completed (year), the project segment cost (if it is longer than one year), and the total estimated cost for both Federal and State shares on projects estimated at longer than one year.

**APPORTIONMENT OF FEDERAL FUNDS BY
STATE AND AUTHORIZATION**

(\$1,000's)

Distribution of Federal funds to the States, other entities and Commissions under two National Marine Fisheries Service fisheries grant programs is provided in the following tabulation. This table accounts for money available through the IJ and the AFC. For more information on these two programs refer to the Introduction.

STATES AND OTHER	TOTAL FY 1990		CUMULATIVE TOTAL		GRAND TOTAL
	P.L. 99-659	P.L. 89-304	P.L. 99-659	P.L. 89-304	
ALABAMA	34.1	12.4	114.2	893.5	1,007.7
ALASKA	205.0	428.2	660.1	10,384.2	11,044.3
ARIZONA	0	-	37.8	-	37.8
ARKANSAS	0	-	37.8	-	37.8
CALIFORNIA	205.0	348.6	660.1	7,332.6	7,992.7
COLORADO	0	-	37.8	-	37.8
CONNECTICUT	17.0	77.0	54.8	816.0	870.8
DELAWARE	17.0	-	54.8	84.0	138.8
FLORIDA	205.0	-	660.1	91.0	751.1
GEORGIA	34.1	18.0	96.4	222.7	319.1
HAWAII	34.1	-	102.4	-	102.4
IDAHO	17.0	-	54.8	-	54.8
ILLINOIS	17.0	-	54.8	21.0	75.8
INDIANA	17.0	-	54.8	-	54.8
IOWA	0	-	37.8	-	37.8
KANSAS	0	-	37.8	-	37.8
KENTUCKY	0	-	37.8	-	37.8
LOUISIANA	205.0	9.0	660.1	109.0	769.1
MAINE	180.0	75.0	513.8	1,203.4	1,717.2
MARYLAND	85.4	46.0	252.9	1,661.1	1,914.0
MASSACHUSETTS	205.0	68.4	660.1	1,524.5	2,184.6
MICHIGAN	17.0	15.0	54.8	599.0	653.8
MINNESOTA	17.0	-	54.8	23.0	77.8
MISSISSIPPI	205.0	22.0	635.6	510.0	1,145.6
MISSOURI	0	-	37.8	20.0	57.8
MONTANA	0	-	37.8	-	37.8
NEBRASKA	0	-	37.8	-	37.8
NEVADA	0	-	37.8	-	37.8
NEW HAMPSHIRE	17.0	-	54.8	1,340.0	1,394.8
NEW JERSEY	112.0	20.0*	316.8	324.5	641.3
NEW MEXICO	0	-	37.8	-	37.8
NEW YORK	63.0	230.0*	171.3	2,054.5	2,225.8
NORTH CAROLINA	135.0	26.9	490.3	1,065.5	1,555.8
NORTH DAKOTA	0	-	37.8	-	37.8
OHIO	17.0	-	54.8	96.0	150.8
OKLAHOMA	0	-	37.8	-	37.8
OREGON	132.0	491.2	318.1	9,846.1	10,164.2
PENNSYLVANIA	17.0	-	54.8	75.0	129.8
RHODE ISLAND	111.5	27.3*	325.1	472.0	797.1
SOUTH CAROLINA	34.1	39.0	94.5	659.3	753.8
SOUTH DAKOTA	0	-	37.8	-	37.8
TENNESSEE	0	-	37.8	-	37.8
TEXAS	205.0	5.0	656.4	16.0	672.4
UTAH	0	-	37.8	-	37.8
VERMONT	17.0	-	54.8	-	54.8
VIRGINIA	205.0	181.0*	660.1	2,632.7	3,292.8
WASHINGTON	205.0	491.2	537.0	14,216.0	14,753.0
WEST VIRGINIA	17.0	-	54.8	-	54.8
WISCONSIN	34.1	-	98.0	510.0	608.0
WYOMING	0	-	37.8	-	37.8
OTHER ENTITIES:					
AMERICAN SAMOA	160.5	-	413.8	-	413.8
GUAM	17.0	-	54.8	-	54.8
PUERTO RICO	148.0	-	268.0	-	268.0
VIRGIN ISLANDS	17.0	-	54.8	-	54.8
NORTHERN MARIANA	34.1	-	171.7	-	171.7
MARINE FISHERIES COMMISSIONS:					
ATLANTIC STATES	110.0	-	329.3	293.0	622.3
GULF STATES	110.0	-	329.3	-	329.3
PACIFIC STATES	110.0	67.5	329.3	661.0	990.3
TOTAL:	3,745.0	2,698.7*	11,934.6	59,765.6	71,691.2

*Includes Emergency Striped Bass Act funding moneys Section 7 of P.L. 89-304

NORTHEAST REGION

The Northeast Region covers territory ranging through 19 states and includes all the Great Lakes states. Information on fiscal year 1990 federally funded projects is available from:

**National Marine Fisheries Service
Northeast Regional Office
One Blackburn Drive
Gloucester, MA 01930**

**Richard B. Roe, Regional Director
Harold C. Mears, Chief
State, Federal and Constituent Programs Division
Telephone (508) 281-9243**

States:

Connecticut	Michigan	Rhode Island
Delaware	Minnesota	Vermont
Illinois	New Hampshire	Virginia
Indiana	New Jersey	West Virginia
Maine	New York	Wisconsin
Maryland	Ohio	
Massachusetts	Pennsylvania	

HIGHLIGHTS OF THE NORTHEAST REGION GRANT ACTIVITIES

Under the provisions of the Interjurisdictional Fisheries Act, the Northeast Regional States continued projects addressing shared state and federal research and management priorities for the region's commercial and recreational fishery resources. Several studies were either implemented or continued on resources for which a fishery occurs under the jurisdiction of one or more states and the Exclusive Economic Zone (Federal waters ranging from 3-200 miles from the shore). These investigations included lobster population studies in Maine, New Hampshire, Rhode Island, Connecticut, and New York. In addition, an Atlantic salmon habitat evaluation was initiated in Vermont, and work began on a summer flounder tagging project in Maryland. Other studies were directed toward fish species for which there exists an interstate fishery management plan adopted by the Atlantic States Marine Fisheries Commission (ASMFC). During 1990, a draft Weakfish Fishery Management Plan was developed by New Jersey to foster cooperative management efforts with neighboring jurisdictions, and ASMFC completed efforts, in conjunction with East Carolina University, to assess the status of American shad and river herring commercial landings along the Atlantic coast. Several other projects were continued on interjurisdictional resources, including finfish and shellfish trawling surveys in Massachusetts, Rhode Island, and Delaware, as well as state/federal fisheries enforcement initiatives in New Jersey and Rhode Island. Finally, investigations on fishery resources which migrate between the waters of two or more States bordering the Great Lakes were continued in Michigan (whitefish), Minnesota (lake trout), and Ohio (yellow perch and carp).

Program funding under the Anadromous Fish Conservation Act entered its twenty-fifth year. American shad and river herring research continued in Maine, Massachusetts, Connecticut, and Virginia. Atlantic and shortnose sturgeon tagging studies were conducted by Connecticut and the University of Massachusetts. Under the emergency striped bass provisions (Section 7) of the Act, research priorities continued to focus on tag and release investigations, and stock characterization.

PROJECT DESCRIPTIONS

The following is a description of the projects that were initiated, ongoing or completed in the Northeast. Those projects that are listed with an "AFC" prefix are funded under the Anadromous Fish Conservation Act. Those projects with "IJ" are funded under the Interjurisdictional Fisheries Act. All projects are listed alphabetically by state. All projects within a state list the 89-304, and then the 99-659 projects. The number in following the AFC codes refers to the number of projects that have been approved in a particular state in that region under that particular program; for instance 3-IJ-4 means that is the fourth project approved under the Interjurisdictional Fisheries Act in the Northeast Region for a particular state, the "3" is the designation for the Northeast Region, each region has a different designation.

ATLANTIC STATES MARINE FISHERIES COMMISSION

ANADROMOUS FISH CONSERVATION ACT

Project Description: Re-evaluation of interstate striped bass conservation and management planning activities.

Project number: AFC-2

Purpose: Reassess the goals and objectives pertaining to cooperative, interstate management of striped bass and revise the existing Interstate Fisheries Management Plan as may be necessary to address developments in the resource and fishery over the past six years. In this process, the project will synthesize research information into a form that will delineate management options appropriate for multi-state implementation.

Contact: Paul Perra

Agency: Atlantic States Marine Fisheries Commission

Status: 5 year project (Completed)

Date Initiated: 1985

Current Year Cost:

Federal: \$ 0

State: 0

Cost over life of project

Federal: \$ 102,000

State: 51,000

Publications: Atlantic States Marine Fisheries Commission, 1990a.

Project Description: Emergency striped bass study workshops.

Project number: AFC-3 (Section 7)

Purpose: Organize, conduct, and prepare draft proceedings for two striped bass workshop, the purpose of which is to present and address the findings of striped bass investigations as well as to provide state fishery managers with current scientific data so that joint management measures for this species may be implemented effectively.

Contact: Paul Perra

Agency: Atlantic States Marine Fisheries Commission

Status: 5 year project (Completed)

Date Initiated: 1985

Current Year Cost:

Federal: \$ 0

State: 0

Cost over life of project:

Federal: \$ 51,000

State: 0

Publications: none

INTERJURISDICTIONAL FISHERIES ACT

Project Description: ASMFC interstate fisheries management program.

Project number: 3-IJ-2

Purpose: Achieve cooperative interstate management of shared territorial seas fisheries of the Atlantic Coast through the development, preparation, implementation, review, and revision of fishery management plans. The Commission promotes better utilization of the fisheries of the Atlantic Coast by administering a joint program designed to promote and protect such fisheries.

Contact: Paul Perra

Agency: Atlantic States Marine Fisheries Commission

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 109,800
State: 0

Cost over life of project

Federal: \$ 328,573
State: 0

Publications: none

Project Description: Research and analysis supporting interstate management of shad and river herring.

Project number: 3-IJ-28

Purpose: Identify and assess research needs relative to the protection and restoration of anadromous alosids along the Atlantic seaboard. Due to the migratory nature of these species, study results will be jointly evaluated to promote an active interchange of ongoing research among the concerned state fisheries agencies. This exchange of information is essential in effectively monitoring the Interstate Fishery Management Plan for American Shad and River Herring.

Contact: Paul Perra

Agency: Atlantic States Marine Fisheries Commission

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 17,076
State: 5,692

Cost over life of project

Federal: \$ 55,001
State: 18,334

Publications: Atlantic States Marine Fisheries Commission, 1990b and 1990c.

CONNECTICUT

ANADROMOUS FISH CONSERVATION ACT

Project Description: Population dynamics studies of American shad in Connecticut.

Project number: AFC-17

Purpose: To monitor and evaluate, through field sampling, relative abundance/fluctuations in shad population size; and to monitor both the sport and commercial shad harvest in the Connecticut and Thames Rivers. Results will directly contribute to research and information needs identified in the Interstate FMP for this species.

Contact: Thomas Savoy

Agency: Department of Environmental Protection

Status: 3 year project (Completed)

Date Initiated: 1987

Current Year Cost:		Cost over life of project	
Federal: \$	0	Federal: \$	145,000
State:	0	State:	145,000

Publications: none

Project Description: Shortnose sturgeon status in Connecticut.

Project number: AFC-18

Purpose: Determine population levels, location, and movements of shortnose sturgeon in the Connecticut and Thames Rivers. Biological sampling will include gillnetting, trawling, scuba surveys, and marking/fin clipping experiments. Project results will provide information necessary to promulgate effective regulations necessary to protect and conserve this endangered species.

Contact: Thomas Savoy
Agency: Department of Environmental Protection
Status: 3 year project
Date Initiated: 1988
Current Year Cost:

Cost over life of project
Federal: \$ 93,000
State: 93,000

Federal: \$ 31,700
State: 31,700

Publications: none

Project Description: Population dynamic studies of American shad in Connecticut.

Project number: AFC-19

Purpose: To monitor and evaluate, through field sampling, relative abundance/fluctuations in shad population size; and to monitor both the sport and commercial shad harvest in the Connecticut and Thames Rivers. Results will directly contribute to research and information needs identified in the Interstate FMP for this species.

Contact: Thomas Savoy
Agency: Department of Environmental Protection
Status: 3 year project
Date Initiated: 1990
Current Year Cost:

Cost over life of project
Federal: \$ 157,600
State: 157,600

Federal: \$ 45,300
State: 45,300

Publications: none

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Connecticut lobster (*Homarus americanus*) population recruitment studies.

Project number: 3-IJ-4

Purpose: Study adult population characteristics, larval ecology, and juvenile abundance of American lobster in Long Island Sound. Study results will be used to forecast annual abundance of the adult, legal size portion of the Long Island Sound lobster stock for resource management purposes.

Contact: Mark Blake
Agency: Department of Environmental Protection
Status: 3 year project
Date Initiated: 1988

Current Year Cost:

Federal: \$ 17,076
State: 17,076

Cost over life of project

Federal: \$ 85,000
State: 85,000

Publications: none

DELAWARE

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Coastal finfish stock assessment survey.

Project number: 3-IJ-27

Purpose: Determine trends in abundance of Delaware's coastal fish stocks. Develop a pre-recruitment index for weakfish, bluefish, and summer flounder to be incorporated into coastwise fishery assessment and management efforts.

Contact: Richard Cole

Agency: Department of Natural Resources and Environmental Control

Status: 5 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 17,076
State: 5,692

Cost over life of project

Federal: \$ 93,745
State: 31,235

Publications: none

MAINE

ANADROMOUS FISH CONSERVATION ACT

Project Description: Androscoggin River anadromous fish enhancement.

Project number: AFC-28

Purpose: Restore anadromous runs of American shad and other alosids to the Androscoggin River. Determine the timing, magnitude, sex composition, and year class strength of alosid populations, with particular emphasis placed on juvenile alewives.

Contact: Lewis N. Flagg

Agency: Department of Marine Resources

Status: 3 year project

Date Initiated: 1989

Current Year Cost:

Federal: \$ 75,000
State: 75,000

Cost over life of project:

Federal: \$ 200,000
State: 200,000

Publications: none

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Maine lobster stock assessment.

Project number: 3-IJ-33

Purpose: Conduct commercial fishing port and on-board sampling along the Maine coast in conjunction with complementary life history and gear selectivity studies. Information gathered will focus on recruitment, reproductive potential, movement, growth, and distribution of juvenile lobsters. The data will be used to assess the current status of the lobster resource in Maine for management purposes.

Contact: Jay S. Krouse

Agency: Department of Marine Resources

Status: 3 year project

Date Initiated: 1989

Current Year Cost:

Federal: \$ 101,255

State: 101,255

Cost over life of project:

Federal: \$ 267,320

State: 267,320

Publications: Krouse and Nutting, 1990a and 1990b.

Project Description: Transboundary herring investigation.

Project number: 3-IJ-34

Purpose: Assess the importance of Eastern Maine and Southwestern New Brunswick spawning sites by tracking the dispersal of Atlantic herring through both the juvenile and adult stages between Canadian and United States waters. Study results will enable the State to effectively address transboundary management concerns for this species.

Contact: Stanley B. Chenoweth

Agency: Department of Marine Resources

Status: 2 year project

Date Initiated: 1989

Current Year Cost:

Federal: \$ 78,686

State: 78,686

Cost over life of project:

Federal: \$ 164,030

State: 164,029

Publications: none

MARYLAND

ANADROMOUS FISH CONSERVATION ACT

Project Description: Maryland striped bass hooking mortality.

Project number: AFC-18 (Section 7)

Purpose: Evaluate through field activities hook and release mortality of striped bass. Project work will focus on examining the effects of salinity on hooking mortality, and the relationships between mortality rates and fish size. Data derived from this study will contribute to information needs identified in the interstate management plan for this species.

Contact: Eric B. May

Agency: Department of Natural Resources

Status: 1 year project (Completed)

Date Initiated: 1989

Current Year Cost:

Federal: 0
State: 0

Cost over life of project:

Federal: \$ 15,000
State: 11,250

Publications: none

Project Description: Anadromous fish restoration in Big Elk Creek.**Project number:** AFC-19

Purpose: To restore healthy spawning populations of American shad and river herring in Big Elk Creek at the head of Chesapeake Bay. The approach will incorporate trapping of adult pre-spawning fish and transplanting in the target area, rearing, and release of imprinted juveniles and construction of a fish ladder to allow fish access to additional spawning habitat.

Contact: C. J. O'Dell**Agency:** Department of Natural Resources**Status:** 1 year project (Completed)**Date Initiated:** 1989**Current Year Cost:**

Federal: \$ 0
State: 0

Cost over life of project:

Federal: \$ 45,000
State: 45,000

Publications: none

Project Description: Recruitment dynamics of Chesapeake Bay striped bass.**Project number:** AFC-20

Purpose: Selected anthropogenic and environmental factors which are believed to have influenced the abundance, growth, and survival of Maryland's 1987-1990 striped bass year classes will be examined. The relationship between temperature, river flow, migratory timing, egg production, etc., and striped bass survival will be investigated to improve the basic understanding of striped bass recruitment dynamics in Chesapeake Bay.

Contact: Louis J. Rugolo**Agency:** Department of Natural Resources**Status:** 2 year project**Date Initiated:** 1990**Current Year Cost:**

Federal: \$ 45,998
State: 118,921

Cost over life of project:

Federal: \$ 45,998
State: 118,921

Publications: none

INTERJURISDICTIONAL FISHERIES ACT**Project Description:** Development of a Chesapeake Bay oyster management strategy**Project number:** 3-IJ-8

Purpose: Continue restoration efforts for the American oyster resource in Maryland waters that have been severely damaged by the disease organism MSX. Project activities will include: 1) planting of shell on natural oyster bars which will provide new substrate for larval attachment; and 2) planting of seed oysters to supplement natural spat set.

Contact: George Krantz
Agency: Department of Natural Resources
Status: 2 year project (Completed)
Date Initiated: 1988

Current Year Cost:
Federal: \$ 0
State: 0

Cost over life of project:
Federal: \$ 502,170
State: 0

Publications: none

Project Description: Maryland fisheries statistics.

Project number: 3-IJ-20

Purpose: Maintain a comprehensive catch reporting system which focuses on the harvest, value, and effort of Maryland's interjurisdictional fisheries resources. Analysis of this data will provide information necessary for determining effects of fishery management decisions and developing fishery management plans.

Contact: Connie Lewis
Agency: Department of Natural Resources
Status: 1 year project (Completed)
Date Initiated: 1989

Current Year Cost:
Federal: \$ 0
State: 0

Cost over life of project:
Federal: \$ 84,027
State: 84,027

Publications: none

Project Description: Tagging studies and stock characterization of summer flounder in the sea side bays, Ocean City, MD.

Project number: 3-IJ-39

Purpose: To ascertain seasonal onshore/offshore movements of summer flounder through conduct of a tagging program which will collect biological ageing data to characterize the coastal population. Data collected will contribute to the research needs identified in the Interstate and Federal Fishery Management Plans for this species.

Contact: Charles H. Hocutt
Agency: Department of Natural Resources
Status: 1 year project
Date Initiated: 1990

Cost over life of project:
Federal: \$ 83,520
State: 9,280

Publications: none

Project Description: Maryland interjurisdictional fisheries statistics.

Project number: 3-IJ-42

Purpose: Maintain a comprehensive catch reporting system which focuses on the harvest, value, and effort of Maryland's interjurisdictional fisheries resources. Analysis of this data will provide information necessary for determining effects of fishery management decisions and developing fishery management plans.

Contact: Connie Lewis

Agency: Department of Natural Resources

Status: 1 year project

Date Initiated: 1990

Cost over life of project:

Federal: \$ 85,425

State: 85,425

Publications: none

MASSACHUSETTS

ANADROMOUS FISH CONSERVATION ACT

Project Description: Anadromous fisheries management.

Project number: AFC-21

Purpose: A program which maintains and enhances existing populations, restores historically important anadromous populations and establishes new populations of anadromous fish, through transplants and construction of fish passage facilities. Emphasis will also be given to biological evaluation of restoration efforts and a survey of Atlantic and shortnose surgeon populations in the Merrimack River.

Contact: Joseph DiCarlo

Agency: Division of Marine Fisheries

Status: 5 year project

Date Initiated: 1986

Current Year Cost:

Federal: \$ 68,400

State: 97,583

Cost over life of project:

Federal: \$ 215,000

State: 215,000

Publications: none

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Massachusetts fishery resource assessment.

Project number: 3-IJ-3

Purpose: Monitor coastal distribution, abundance, size composition, and health of fishery resources inhabiting inshore and coastal waters of Massachusetts. Project data provides timely fisheries information for managing marine fishery resources in state waters.

Contact: Arnold Howe

Agency: Division of Marine Fisheries

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 10,000

State: 197,775

Cost over life of project:

Federal: \$ 235,385

State: 636,415

Publications: none

Project Description: Interjurisdictional fisheries management support program.

Project number: 3-IJ-16

Purpose: Provide services to the fishing and seafood industry by advising participants on fisheries management considerations/strategies, assessing constituent concerns on these issues and informing resource managers of related, potential problems. Particular emphasis will be placed on gear research technology to improve gear selectivity which will result in the development of appropriate management schemes and regulations for the wise utilization and conservation of marine fishery resources.

Contact: Buell Hollister and H. Arnold Carr

Agency: Division of Marine Fisheries

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 60,082

State: 60,082

Cost over life of project:

Federal: \$ 221,658

State: 181,358

Publications: none

Project Description: Fisheries statistics and automated data processing.

Project number: 3-IJ-29

Purpose: Continue to collect, analyze, and disseminate fishery landings data by species and gear of Massachusetts interjurisdictional fishery resources. As a member of the Northeast Statistics Program, project results will be utilized to meet the requirements of state, interstate, and Federal fisheries agencies responsible for the management of marine resources within internal waters and territorial seas of the individual states and the Exclusive Economic Zone.

Contact: Charles O. Anderson

Agency: Division of Marine Fisheries

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 98,825

State: 26,916

Cost over life of project:

Federal: \$ 287,675

State: 236,506

Publications: Hoopes, 1990.

MICHIGAN

ANADROMOUS FISH CONSERVATION ACT

Project Description: Evaluation of anadromous fish gill netting mortality in large mesh gill nets in an exploratory commercial fishery for Siscowet trout in Lake Superior.

Project number: AFC-16

Purpose: Determine the immediate and long term effect of this exploratory fishery upon resident and anadromous salmonids and lean lake trout populations. Data gathered will include monitoring incidental catch rates, in large mesh gillnets of these species as well as predation of them by Siscowets.

Contact: Richard Schorfhaar
Agency: Department of Natural Resources
Status: 5 year project
Date Initiated: 1988

Current Year Cost:

Federal: \$ 15,000
State: 15,000

Cost over life of project:

Federal: \$ 75,000
State: 75,000

Publications: none

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Assessment of whitefish populations in the treaty area of Lake Michigan.

Project number: 3-IJ-17

Purpose: Monitor whitefish harvest in the commercial trapnet fishery, determine relative abundance of pre-recruits, and forecast the total allowable yield of whitefish in the treaty waters of Lake Michigan.

Contact: Philip Schneeberger
Agency: Department of Natural Resources
Status: 5 year project
Date Initiated: 1988

Current Year Cost:

Federal: \$ 16,900
State: 5,700

Cost over life of project:

Federal: \$ 120,000
State: 40,000

Publications: none

MINNESOTA

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Lake Superior commercial fisheries assessment studies.

Project number: 3-IJ-12

Purpose: Ascertain and monitor the status of the lake trout and commercial fish stocks in the Minnesota waters of Lake Superior. Determine annual production and relative abundance indices and the degree of interaction between different types of fishing, including sport fishing. Project data will be analyzed to aid decision making in the rehabilitation and utilization of these resources.

Contact: Donald R. Schreiner
Agency: Department of Natural Resources
Status: 5 year project
Date Initiated: 1988

Current Year Cost:

Federal: \$ 17,076
State: 5,692

Cost over life of project:

Federal: 112,500
State: 7,500

Publications: none

NEW HAMPSHIRE

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Assessment of American lobster (*Homarus americanus*) nursery potential in Great Bay estuary.

Project number: 3-IJ-22

Purpose: Determine the distribution and abundance of lobster in coastal and estuarine waters of New Hampshire. Relationships between larval distribution and the possible use of estuaries as nursery grounds will be investigated. The data will be used to assess the current status of the lobster resource in New Hampshire waters for management purposes.

Contact: John I. Nelson

Agency: Fish and Game Department

Status: 2 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 17,185
State: 5,692

Cost over life of project:

Federal: \$ 54,986
State: 18,327

Publications: none

NEW JERSEY

ANADROMOUS FISH CONSERVATION ACT

Project Description: New Jersey striped bass tagging program

Project number: AFC-12 (Section 7)

Purpose: Ascertain and monitor the movements and distribution of striped bass found within New Jersey's portion of Delaware Bay through implementation of a coastwise tagging survey. Tag return information will aid current restoration efforts required under the Interstate Fisheries Management Plan for this species.

Contact: Peter J. Himchak

Agency: Division of Fish, Game and Wildlife

Status: 2 year project

Date Initiated: 1989

Current Year Cost:

Federal: \$ 20,000
State: 2,222

Cost over life of project:

Federal: \$ 40,000
State: 4,444

Publications: none

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Interjurisdictional fisheries enforcement.

Project number: 3-IJ-13

Purpose: Conduct cooperative enforcement activities designed to support the management of selected interjurisdictional marine species in the Exclusive Economic Zone and state territorial waters. Investigative activities will include land, sea, and air patrols to monitor the commercial and recreational harvesting and landing of striped bass, summer flounder, lobster, and surf clams in support of state/federal resource management objectives.

Contact: Raymond Krischner

Agency: Division of Fish, Game and Wildlife

Status: 4 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 25,000

State: 2,777

Cost over life of project:

Federal: \$ 75,000

State: 8,334

Publications: none

Project Description: Inventory of New Jersey's surf clam resources.

Project number: 3-IJ-15

Purpose: Determine the relationships between the standing stock, size, distribution of surf clams within this stock, settling patterns of juvenile surf clams and their associated mortality rates along the coastal waters of New Jersey. This information will assist both state and federal fisheries managers to ensure development and implementation of sound management practices of this valuable resource.

Contact: Thomas W. McCloy

Agency: Division of Fish, Game and Wildlife

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 86,996

State: 9,666

Cost over life of project:

Federal: \$ 223,425

State: 24,826

Publications: none

NEW YORK

ANADROMOUS FISH CONSERVATION ACT

Project Description: A Study of the striped bass in the marine district of New York State.

Project number: AFC-14 (Sections 4 & 7)

Purpose: Continue collection of bio-characteristics data of New York's striped bass population through sampling of coastal and recreational catch, and assess striped bass spawning success in the Hudson River to provide indices of year class strength.

Contact: Byron Young

Agency: Division of Marine Resources

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 230,000

State: 25,556

Cost over life of project:

Federal: \$ 919,200

State: 102,135

Publications: none

INTERJURISDICTIONAL FISHERIES ACT

Project Description: American lobster investigations in New York waters.

Project number: 3-IJ-11

Purpose: Determine through sampling, tagging activities, the biological population parameters and movements of American lobsters in Long Island Sound. Data collected will be used to support the management of this interjurisdictional resource.

Contact: Phillip T. Briggs

Agency: Division of Marine Resources

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 63,079
State: 21,027

Cost over life of project:

Federal: \$ 171,367
State: 67,909

Publications: none

OHIO

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Determination of PCB contaminant levels in Lake Erie's commercial fish species.

Project number: 3-IJ-21

Purpose: Determine PCB concentrations in channel catfish commercially harvested from the Ohio waters of Lake Erie. Data gathered will identify possible relationships between PCB levels in carp and yellow perch by size, age, and geographical location.

Contact: Kenneth Paxton

Agency: Department of Natural Resources

Status: 2 year project (Completed)

Date Initiated: 1988

Current Year Cost:

Federal: \$ 0
State: 0

Cost over life of project:

Federal: \$ 37,925
State: 12,642

Publications: none

Project Description: Determination of PCB contaminant levels in Lake Erie fish species.

Project number: 3-IJ-40

Purpose: Determine PCB concentrations in walleye harvested from the Ohio waters of Lake Erie. Data gathered will identify possible relationships between PCB levels in these fish by size, age, and geographical location. Information gathered will support management decisions regarding Lake Erie recreational and commercial fisheries.

Contact: Kenneth Paxton

Agency: Department of Natural Resources

Status: 2 year project

Date Initiated: 1990

Current Year Cost:

Federal: \$ 17,076
State: 5,692

Cost over life of project:

Federal: \$ 34,152
State: 11,384

Publications: none

RHODE ISLAND

ANADROMOUS FISH CONSERVATION ACT

Project Description: Striped bass stock assessment in Rhode Island waters.

Project number: AFC-4 (Section 7)

Purpose: Characterize the composition of Rhode Island striped bass commercial landings to help assess the current status of coastal stocks and determine the level of exploitation by various fisheries.

Contact: John O'Brien

Agency: Division of Fish and Wildlife

Status: 9 year project

Date Initiated: 1981

Current Year Cost:

Federal: \$ 27,300
State: 3,033

Cost over life of project:

Federal: \$ 327,800
State: 67,531

Publications: Berlinsky, 1989.

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Interjurisdictional fisheries enforcement.

Project number: 3-IJ-31

Purpose: Conduct cooperative enforcement activities designed to support the management of selected interjurisdictional marine species in the Exclusive Economic Zone and state territorial waters. Investigative activities will include land, sea, and air patrols to monitor the commercial and recreational harvesting and landing of striped bass, tuna and surf clams in addition to other eligible interjurisdictional species in support of state/federal resource management objectives.

Contact: Ernest Wilkinson

Agency: Division of Fish and Wildlife

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 0
State: 0

Cost over life of project:

Federal: \$ 75,000
State: 0

Publications: none

Project Description: Interjurisdictional fisheries management support program.

Project number: 3-IJ-32

Purpose: Provide research and administrative support to the State to facilitate development and evaluation of interjurisdictional fisheries management measures. Research activities will include assessment of gear methodology, legal size limits, and seasonal geographical harvest restrictions for Rhode Island groundfish, striped bass, and lobster fisheries.

Contact: Richard Sisson

Agency: Division of Fish and Wildlife

Status: 3 year project (Completed)

Date Initiated: 1988

Current Year Cost:
Federal: \$ 0
State: 0

Cost over life of project:
Federal: \$ 271,800
State: 30,200

Publications: none

Project Description: Coastal fishery resource assessment.

Project number: 3-IJ-35

Purpose: Conduct a seasonal bottom trawl survey for the collection of fishery statistical data. Information gathered will augment previous resource assessment surveys and aid in the continued development of minimum biomass estimates for major commercial species by the state and NMFS stock assessment scientists. The estimates will aid in the intelligent management of the resources throughout their range.

Contact: Timothy R. Lynch
Agency: Division of Fish and Wildlife
Status: 2 year project
Date Initiated: 1989

Current Year Cost:
Federal: \$ 43,644
State: 18,932

Cost over life of project:
Federal: \$ 120,370
State: 53,818

Publications: none

Project Description: Rhode Island lobster research and management project.

Project number: 3-IJ-43

Purpose: To characterize Rhode Island's commercial lobster fishery through implementation of a data collection program that focuses on gathering important biological and population statistics data. Information will be collected monthly by field sampling aboard cooperating commercial lobster boats, and will include biological data on size, sex, and sexual maturity. This information will aid in the management of lobster in Rhode Island.

Contact: Thomas Angel
Agency: Division of Fish and Wildlife
Status: 3 year project
Date Initiated: 1990

Current Year Cost:
Federal: \$ 37,782
State: 4,198

Cost over life of project:
Federal: \$ 88,011
State: 9,779

Publications: none

VERMONT

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Survival and growth of Atlantic salmon fry stocked in varying densities in the White River, Vermont.

Project number: 3-IJ-19

Purpose: Determine first year survival and growth of Atlantic salmon fry stock in varying densities in Vermont waters. The areas will be periodically sampled to determine population size and growth of the stocked salmon. Information

gathered will assist fishery managers in evaluating the effectiveness of the fry stocking program and provide needed data on optimum densities necessary to maximize Atlantic salmon production.

Contact: George W. LaBar
Agency: Department of Fish and Wildlife
Status: 2 year project (Completed)
Date Initiated: 1989

Current Year Cost:

Federal: \$ 0
State: 0

Cost over life of project:

Federal: \$ 39,000
State: 3,900

Publications: none

Project Description: Development of habitat suitability models for Atlantic salmon fry in the West and White Rivers, Vermont.

Project number: 3-IJ-41

Purpose: Identify the causes of observed differences in Atlantic salmon fry survival in the West and White Rivers in Vermont. Sampling abundance of invertebrates by netting and for finfish by electroshocking. The finfish data will be used to develop an index of competition and predation. The effort will aid in the development of habitat suitability models which could aid in developing an Atlantic salmon fry management policy.

Contact: George W. LaBar
Agency: Division of Fish and Wildlife
Status: 2 year project
Date Initiated: 1990

Current Year Cost:

Federal: \$ 17,076
State: 5,589

Cost over life of project:

Federal: \$ 34,152
State: 11,168

Publications: none

VIRGINIA

ANADROMOUS FISH CONSERVATION ACT

Project Description: Striped bass research in Virginia.

Project number: AFC-18 (Section 7)

Purpose: Monitor the abundance of young-of-the-year striped bass in selected river systems and examine relationships between juvenile abundance and environmental variables. These data will augment existing data from previous surveys and contribute to interstate fisheries management.

Contact: Joseph B. Loesch
Agency: Virginia Institute of Marine Science
Status: 5 year project
Date Initiated: 1986

Current Year Cost:

Federal: \$ 79,409
State: 28,058

Cost over life of project:

Federal: \$ 438,977
State: 148,736

Publications: none

Project Description: A mark and recapture study of striped bass in the James River, Virginia.

Project number: AFC-19 (Section 7)

Purpose: Tag and release of striped bass in the James River and to evaluate migratory behavior and exploitation rates in coastal fisheries.

Contact: Joseph B. Loesch

Agency: Virginia Institute of Marine Science

Status: 4 year project

Date Initiated: 1987

Current Year Cost:

Federal: \$ 50,000
State: 15,332

Cost over life of project:

Federal: \$ 265,000
State: 66,250

Publications: none

Project Description: A study of Alosa stock composition and year class strength in Virginia.

Project number: AFC-20

Purpose: Collect harvest and biological data for analysis of alosid (alewife, American shad, and blueback herring) populations in Virginia coastal waters and evaluate annual relative abundance, growth, and mortality of juvenile alosid stocks.

Contact: Joseph B. Loesch

Agency: Virginia Institute of Marine Science

Status: 3 year project (Completed)

Date Initiated: 1987

Current Year Cost:

Federal: \$ 0
State: 0

Cost over life of project:

Federal: \$ 223,000
State: 223,000

Publications: none

Project Description: A study of Alosa stock composition in Virginia's commercial inshore fisheries.

Project number: AFC-21

Purpose: Determine species composition, catch per unit of effort, age and size frequencies, and year class strength by monitoring commercial hook and line, gill net and pound net fisheries for American shad and river herring in Virginia's James, York and Rappahannock Rivers.

Contact: Joseph B. Loesch

Agency: Virginia Institute of Marine Science

Status: 3 year project

Date Initiated: 1990

Current Year Cost:

Federal: \$ 51,600
State: 51,600

Cost over life of project:

Federal:\$ 166,700
State: 166,700

Publications: none

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Commercial fisheries statistics and information systems.

Project number: 3-IJ-24

Purpose: Collect, process, analyze, and disseminate Virginia's commercial and recreational interjurisdictional fisheries catch/effort data in support of fishery management activities. Analysis of this data will provide information necessary for determining effects of fishery management decision and developing appropriate management strategies.

Contact: Lyle M. Varnell

Agency: Marine Resources Commission

Status: 1 year project (Completed)

Date Initiated: 1988

Current Year Cost:

Federal: \$ 0

State: 0

Cost over life of project:

Federal: \$ 170,650

State: 56,883

Publications: none

Project Description: The assessment of commercial fishing effort in Virginia.

Project number: 3-IJ-37

Purpose: Collect fishing effort data for pound nets and gillnets in Virginia's James, York, Rappahannock, and Potomac River commercial fisheries. Study results will provide information needed for the formulation of rationale state management strategies for striped bass and shad/river herring. The project will also address management concerns stated in the interstate management plan for these species.

Contact: Joseph B. Loesch

Agency: Marine Resources Commission

Status: 1 year project (Completed)

Date Initiated: 1989

Current Year Cost:

Federal: \$ 0

State: 0

Cost over life of project:

Federal: \$ 36,474

State: 12,162

Publications: none

Project Description: Commercial fisheries statistics information systems

Project number: 3-IJ-38

Purpose: Collect, process, analyze, and disseminate Virginia's commercial and recreational interjurisdictional fisheries catch/effort data in support of fishery management activities. Analysis of this data will provide information necessary for determining effects of fishery management decisions and developing appropriate management strategies.

Contact: Lyle M. Varnell

Agency: Marine Resources Commission

Status: 2 year project

Date Initiated: 1990

Current Year Cost:

Federal: \$ 204,862

State: 68,302

Cost over life of project:

Federal: \$ 398,653

State: 132,880

Publications: none

WEST VIRGINIA

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Ohio River fisheries information system

Project number: 3-IJ-36

Purpose: Collect, analyze, and enter diverse biological and environmental fisheries research information into a computerized map database which affects the West Virginia portion of the Ohio River. Project activities will focus on the input of such data and refining the associated output (e.g., reports in the form of tables, graphs, and maps correlating important riverine features with known concentrations of fish) for multi-agency analyses of Ohio River fisheries management concerns.

Contact: M. Delbert Lobb

Agency: Department of Natural Resources

Status: 2 year project

Date Initiated: 1990

Current Year Cost:

Federal: \$ 17,076

State: 5,692

Cost over life of project:

Federal: \$ 36,261

State: 12,087

Publications: none

WISCONSIN

ANADROMOUS FISH CONSERVATION ACT

Project Description: Assessment of alewife and rainbow smelt populations and the trawl fishery in Lake Michigan.

Project number: AFC-17

Purpose: To develop and conduct an acoustic sampling program to assess the abundance of alewives and rainbow smelt in the Wisconsin waters of Lake Michigan and Green Bay. Data will be collected with echo sounders and recorded digitally on video cassette. The trawl fishery will be monitored to determine the total harvest and effort expended in the commercial fishery for these species.

Contact: Mark Holey

Agency: Department of Natural Resources

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 0

State: 0

Cost over life of project:

Federal: \$ 134,700

State: 134,700

Publications: none

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Great Lakes commercial statistics information system.

Project number: 3-IJ-23

Purpose: To improve, through centralization of all license and permit activities, current collection, compilation, and analysis methods of harvest data for the sport and commercial fisheries conducted within Lake Michigan and Lake Superior. These activities will enable the streamlining of commercial catch reporting and licensing systems for implementation of limited entry and quota harvest regulations that Wisconsin utilizes to accurately manage their commercial fisheries within the Great Lakes.

Contact: Mark Holey
Agency: Department of Natural Resources
Status: 4 year project
Date Initiated: 1988

Current Year Cost:

Federal: \$ 34,151
State: 11,384

Cost over life of project:

Federal: \$ 151,575
State: 50,525

Publications: none

SOUTHEAST REGION

There is a great diversity of fishery resources within the Southeast Region which includes 17 states, the Commonwealth of Puerto Rico, and the U.S. Virgin Islands. Information on the fiscal year 1990 federally funded projects is available from:

National Marine Fisheries Service
Southeast Regional Office
9450 Koger Boulevard
St. Petersburg, Florida 33702

Andrew J. Kemmerer, Regional Director
Donald R. Ekberg, Grant-In-Aid Coordinator
Telephone (813) 893-3720

States:

Alabama
Arkansas
Florida
Georgia
Iowa
Kansas
Kentucky

Louisiana
Mississippi
Missouri
Nebraska
New Mexico
North Carolina
Oklahoma

Puerto Rico
South Carolina
Tennessee
Texas
Virgin Islands

HIGHLIGHTS OF THE SOUTHEAST REGION GRANT ACTIVITIES

Commercial and recreational fishing is one of the most important industries in the Southeast. Commercial fishermen land 2.1 billion pounds of fish and shellfish at Southeastern ports. These landings had an ex-vessel value of about 817 million dollars and a retail value several times this amount. The commercial fisheries in the Southeast directly employ 40,000 fishermen in harvesting activities and an additional 22,000 persons in wholesaling and processing functions. Recreational fishermen in the South Atlantic and Gulf of Mexico harvest nearly 80 percent of the total number of marine recreational fish in the United States.

During 1990, the coastal states of the Southeast Region utilized federal assistance funds under the Interjurisdictional Fisheries Research Act (Title III of P.L. 99-659) in conducting various important projects. These projects were designed to support the conservation, restoration and management of our living marine resources. Gulf of Mexico state's activities centered on collection and analysis of a long-term data base on our marine resources and their associated environment. Resource trends shown by these data allow the development of long range plans for management to improve or maintain regional fisheries.

Texas continued to monitor trends in shrimp, blue crab and oyster populations. Disaster funds of \$200,000 were granted to Texas for the rehabilitation of 163 acres of public oyster grounds damaged by excessive flooding in Galveston Bay. Mississippi continued to sample shrimp, blue crab, Atlantic croaker, spot, spotted seatrout and oysters to determine species distribution, and abundance. Louisiana conducted sampling surveys of shrimp, groundfish, crabs and oysters in conjunction with hydrological readings and environmental information. They also continued restoration of oyster resources. Alabama continued to collect creel data, length and catch of marine fishes (Spanish and king mackerel, red drum, and reefish) covered by fishery management plans of the Gulf of Mexico Fishery Management Council (GMFMC). Florida conducted studies on stock assessment and identification of stone crab and blue crab population genetics using comprehensive techniques in electrophoretic analyses. They also collected data on the adult red drum as to size, age, sex and migratory behavior through a capture/tag/release

program and studied stone crab life histories. Mississippi and Alabama used part of their interjurisdictional fisheries allocation for enforcement activities that adhere to regulations established in Fishery Management Plans (FMPs) by the (GMFMC).

The South Atlantic states continued to collect data for use in the preparation and implementation of state and interjurisdictional management plans for selected marine species. Georgia conducted sampling of shrimp and blue crab in large creeks and rivers, sounds and nearshore ocean waters, in addition to collecting environmental parameters data at these sites. A tag and recovery operation of shrimp to determine migration patterns was also conducted. North Carolina collected data on abundance, age, size and species composition of finfish taken in long haul seines, sciaenid pound nets, sink nets, and winter trawls. Reef fish and coastal pelagic fisheries were also studied. South Carolina continued to collect data on size frequency catch and effort on reef fish, coastal pelagic, swordfish and swordfish by-catch to be incorporated into the cooperative NMFS/state "Trip Interview Program," database. Studies on the movement of black sea bass and their exploitation was also continued by South Carolina.

In the Caribbean, Puerto Rico continued their study of the landings and effort of the commercial fishermen, and updated a census on the number of fishermen in their Commonwealth. The Virgin Islands conducted studies on the abundance, species composition, and basic biology of baitfish.

The Gulf States Marine Fisheries Commission is monitoring the blue crab research efforts of the states in the gulf region to establish a repository for blue crab information. This will facilitate updating the blue crab FMP when needed. The oyster FMP is under review and will be complete in 1991. Preliminary population dynamics work on the black drum FMP is being reviewed by the five Gulf states. New species such as spotted seatrout and mullet for management plan development are being considered.

Seven states participated in the Anadromous Fish Conservation Program for 1990. Louisiana continued striped bass sampling for fingerlings, eggs, and larvae. Mississippi reared and restocked striped bass in their coastal tributaries. Auburn University continued striped bass nutrition studies for increasing production. Texas conducted studies on striped bass life history characteristics. North Carolina continued studies of the abundance, growth and distribution of the blueback herring, alewife, American shad by collecting data from participating fishermen and also conducted a capture/tag/release project to determine their exploitation. Georgia collected biological and catch/effort data on the Atlantic sturgeon and also conducted a biotelemetry study to determine their movement and migration.

For detailed information on individual state projects, the states may be contacted directly. A list of state fisheries agencies follows the program analyses section.

PROJECT DESCRIPTIONS

The following is a description of the projects that were initiated, ongoing or completed in the Northeast. Those projects that are listed with and "AFC" prefix are funded under the Anadromous Fish Conservation Act. Those projects with "IJ" are funded under the Interjurisdictional Fisheries Act. All projects are listed alphabetically by state. All projects within a state list the 89-304, and then the 99-659 projects. The number in following the AFC codes refers to the number of projects that have been approved in a particular state in that region under that particular program; for instance 2-IJ-4 means that is the fourth project approved under the Interjurisdictional Fisheries Act in the Southeast Region for a particular state, the "2" is the designation for the Northeast Region, each region has a different designation.

ALABAMA

ANADROMOUS FISH CONSERVATION ACT

Project: Nutrition studies for increasing production of striped bass fingerlings.

Project number: AFC-31

Purpose: Extract and identify the factor(s) in brine shrimp nauplii responsible for growth of striped bass larvae.

Contact: R. T. Lovell
Agency: Auburn University
Status: 5 year project
Date Initiated: 1986

Current Year Cost:		Cost over life of project	
Federal: \$	12,390	Federal \$	76,500
State:	12,390	State:	76,500

Publications: Webster, 1989

INTERJURISDICTIONAL FISHERIES ACT

Project: Research and management of Alabama Interjurisdictional fisheries.

Project number: 2-IJ-1

Purpose: Monitor the abundance of larval, post larval, juvenile and adult shrimp, fish, crabs, and oysters in Alabama waters and recommend harvest regulations.

Contact: Walter M. Tatum
Agency: Department of Conservation and Natural Resources
Status: 3rd year
Date Initiated: 1988

Current Year Cost:		Cost over life of project:	
Federal: \$	9,150	Federal: \$	54,607
State:	1,016	State:	9,869

Publications: none

Project: Enforcement and coordination of interjurisdictional fisheries protection measures

Project number: 2-IJ-26-1

Purpose: To coordinate enforcement activities with NMFS and others for interjurisdictional fisheries protection measures.

Contact: Jerald Waller
Agency: Department of Conservation and Natural Resources
Status: 1 year project
Date Initiated: 1990

Current Year Cost:	
Federal: \$	25,000
State:	0

Publications: none

FLORIDA

Project: Florida's Interjurisdictional Marine Fisheries Research Programs.

Project number: 2-IJ-2

Purpose: Studies will include fisheries stock identification, population genetics, population dynamics, life histories and reproduction of the stone crab, blue crab, sea trout and red drum.

Contact: Karen Steidinger

Agency: Department of Natural Resources

Status: 3rd year

Date Initiated: 1988

Current Year Cost:

Federal: \$ 24,907

State: 68,302

Cost over life of project:

Federal: \$ 435,127

State: 151,700

Publications: none

GEORGIA

Project: Assessment of Georgia's marine fisheries resources.

Project number: 2-IJ-4

Purpose: Monitor penaeid shrimp and blue crab populations in Georgia estuaries for shellfish management decisions. Increase data base knowledge of selected aspects of life histories of Georgia's major coastal finfishes and shellfish. Determine movement and growth of commercially important penaeid shrimp in estuarine and coastal marine waters.

Contact: James L. Music

Agency: Department of Natural Resources

Status: 3rd year

Date Initiated: 1988

Current Year Cost:

Federal: \$ 34,151

State: 11,384

Cost over life of project:

Federal: \$ 72,521

State: 24,174

Publications: none

ANADROMOUS FISH CONSERVATION ACT

Project: Assessment and biotelemetry studies of Atlantic Sturgeon in Georgia.

Project number: AFC-29

Purpose: Determine the population structure of the commercial sturgeon fishery including age data, sex ratios, length frequencies, and size at maturity. Conduct a biotelemetry study on Atlantic sturgeon to determine movement and migration patterns. Determine spawning migration, residence times, daily and season movements.

Contact: James L. Music

Agency: Department of Natural Resources

Status: 5th year

Date Initiated: 1985

Total cost:

Federal: \$ 18,000

State: 18,000

Cost over life of project:

Federal: \$ 106,200

State: 106,200

Publications: none

GULF STATES MARINE FISHERIES COMMISSION

INTERJURISDICTIONAL FISHERIES ACT

Project: A project to develop Interjurisdictional Fisheries Management Plans.

Project number: 2-IJ-8

Purpose: Identify and establish priority fisheries for regional plan development, organize task forces, employ consultants, accumulate and analyze data. Arrange for all meetings and perform all necessary duties to administer program activities.

Contact: Larry Simpson

Agency: Gulf States Marine Fisheries Commission

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 110,000

State 0

Cost over life of project:

Federal: \$ 329,300

State: 0

Publications: Christmas, Etzold, Simpson, and Meyers, 1988.

LOUISIANA

Project: Enhancement of oyster seed production on Louisiana's Public Reefs.

Project number: 2-IJ-10 [Section 308(b)]

Purpose: Plant approximately 45,000 cubic yards of clamshell on 900 acres of public oyster reefs in selected areas.

Contact: Ronald Dugas

Agency: Department of Wildlife and Fisheries

Status: Completed 6/30/90

Date Initiated: 1988

Current Year Cost:

Federal: \$ 742,400

State 0

Cost over life of project

Federal: \$ 742,400

State: 0

Publications: none

Project: Interjurisdictional Assessment and management of Louisiana's coastal fisheries.

Project number: 2-IJ-14

Purpose: To maintain a coastwise program which monitors relevant parameters of economically important seafood resources.

Contact: Phil Bowman

Agency: Department of Wildlife and Fisheries

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 204,907

State: 68,303

Cost over life of project

Federal: \$ 660,000

State: 220,000

Publications: none

Project: Anadromous striped bass monitoring

Project number: AFC-39-1

Purpose: To gather data as to the extent of reproducing striped bass, their abundance and migration patterns.

Contact: Arthur M. Williams

Agency: Department of Wildlife and Fisheries

Status: Funding for two year period

Date Initiated: 1989

Current Year Cost:

Federal: 20,000

State: 2,222

Cost over life of project:

Federal: \$ 20,000

State: 2,222

Publications: none

MISSISSIPPI

ANADROMOUS FISH CONSERVATION ACT

Project: Rearing striped bass and restocking coastal tributaries of the Mississippi.

Project number: AFC-41

Purpose: Restore the striped bass population in the Gulf of Mexico coastal area of the states of Alabama and Mississippi by annual stocking of advanced striped bass fingerlings.

Contact: Larry Nicholson

Agency: Department of Wildlife Conservation (GCRL)

Status: 3 year project

Date Initiated: 1990

Current Year Cost:

Federal: \$ 22,000

State: 2,444

Cost over life of project:

Federal: \$ 66,000

State: 5,332

Publications: none

INTERJURISDICTIONAL FISHERIES ACT

Project: IJ monitoring and assessment of selected Mississippi marine resources.

Project number: 2-IJ-22

Purpose: To: 1) assess finfish stocks in Mississippi Sound and adjacent waters with emphasis on spotted seatrout, red drum, and striped mullet; 2) collect and analyze data on the condition of oyster reefs to determine numbers of live oysters, marketable oysters, number of spawnable oysters, incidence of diseases and predators, and 3) monitor white and brown shrimp post-larvae, 4) assess blue crab stocks.

Contact: Thomas McIlwain

Agency: Department of Wildlife Conservation/Gulf Coast Research Laboratory

Status: 2nd year

Date Initiated: 1989

Current Year Cost:
Federal: \$ 180,702
State/GCRL: 60,234

Cost over life of project:
Federal: \$ 361,404
State/GCRL: 120,468

Publications: Overstreet, Crites, Leblanc, Lotz, Weidner. Ledeschi, Fuseler

Project: Mississippi Interjurisdictional Marine Enforcement

Project number: 2-IJ-25

Purpose: Provide cooperative law enforcement services between NMFS, Coast Guard, State of MS Dept. Wildlife, Fisheries and Parks.

Contact: Pat Anglada

Agency: Department of Wildlife Conservation

Status: 2nd year

Date Initiated: 1989

Current Year Cost:
Federal: \$ 24,205
State: 0

Cost over life of project:
Federal: \$ 74,205
State: 0

Publications: none

NORTH CAROLINA

INTERJURISDICTIONAL FISHERIES ACT

Project: North Carolina commercial finfish assessment.

Project number: 2-IJ-16

Purpose: Collect, analyze and report information on North Carolina finfish operations for use in management of the fisheries and preparation and implementation of state and interjurisdictional management plans for the fisheries involved.

Contact: Mike Street, Jeffrey Ross, and David Moye.

Agency: Department of Environment, Health & Natural Resources

Status: 3 year project

Date Initiated: 1988

Current Year Cost:
Federal: \$ 135,030
State: 45,010

Cost over life of project:
Federal: \$ 409,239
State: 92,689

Publications: none

ANADROMOUS FISH CONSERVATION ACT

Project: North Carolina Alosid management project.

Project number: AFC-36

Purpose: Determine the relative abundance, growth and distribution of juvenile alosid species. Assess river herring and shad stocks.

Contact: Sara Winslow

Agency: Department of Environment, Health & Natural Resources

Status: 3 year project

Date Initiated: 1989

Current Year Cost:

Federal: \$ 26,880
State: 26,880

Cost over life of project:

Federal: \$ 50,880
State: 50,880

Publications: none

PUERTO RICO

INTERJURISDICTIONAL FISHERIES ACT

Project: Puerto Rico/NMFS Interjurisdictional Fisheries Program.

Project number: 2-IJ-12

Purpose: Provide an efficient and reliable mechanism for recording landings of commercial fishermen, biostatistical and effort data and update census data of the island's commercial fishermen.

Contact: Graciela Garcia-Moliner

Agency: Marine Resources Development Corporation

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 147,519
State: 49,173

Total cost over life of project:

Federal: \$ 415,022
State: 122,437

Publications: none

SOUTH CAROLINA

Project: Collection of bio-profile and catch/effort fishery dependent data on migratory, coastal and offshore finfish

Project number: 2-IJ-23-2

Purpose: To collect information from commercial fishermen on snapper/grouper, swordfish and associated by-catch (marlins, tunas, dolphin and wahoo). Information collected is the size, gear used and how many fishing trips, etc., and will be analyzed, entered into a database to monitor and improve management plans

Contact: Dave Cupka

Agency: Wildlife and Marine Resources Department

Status: 1 year project

Date Initiated: 1990

Cost:

Federal: \$ 34,151
State: 11,384

Publications: none

Project: Inshore movement and utilization of black sea bass.

Project number: 2-IJ-24-1

Purpose: To collect information on black sea bass concerning their movements from inshore areas to nearby reefs and determine the levels of overfishing in inshore areas to assist in developing management plans.

Contact: Dave Cupka
Agency: Wildlife and Marine Resources Department
Status: 1 year project
Date Initiated: 1990
Total Cost:
Federal: \$ 21,486
State: 7,162

Publications: none

ANADROMOUS FISH CONSERVATION ACT

Project: Commercial anadromous fisheries investigations in South Carolina.

Project number: AFC-40

Purpose: To monitor stocks of American shad by collecting information from fishermen and return of tags from captured fish. Monitor selected areas to assess the Atlantic sturgeon population.

Contact: Dave Cupka
Agency: Wildlife and Marine Resources Department
Status: 1 year project
Date Initiated: 1990
Total Cost:
Federal: \$ 39,025
State: 39,025

Publications: none

TEXAS

INTERJURISDICTIONAL FISHERIES ACT

Project: Interjurisdictional-Texas commercial fisheries management program.

Project number: 2-IJ-13

Purpose: Monitor trends in brown shrimp, white shrimp, pink shrimp, blue crab and Eastern oysters relative abundance and size. Population status to be used to determine management regulations.

Contact: Rudy Rosen
Agency: Texas Parks & Wildlife Conservation
Status: 2 year project
Date Initiated: 1988
Current Year Cost:
Federal: \$ 204,907
State: 68,302

Total cost over life of project
Federal: \$ 656,287
State: 218,735

Publications: none

Project: Interjurisdictional-Texas commercial fisheries management program: rehabilitation of public oyster reefs damaged by a natural disaster

Project number: 2-IJ-27 (308b)

Purpose: To rehabilitate 163 acres of public oyster grounds on the Redfish Bar Reef in Galveston Bay, Texas, by planting 8,160 yards of cultch on reefs damaged by excessive flooding during the summer of 1989, to create a base for spat to attach.

Contact: Rudy Rosen
Agency: Texas Department of Parks & Wildlife
Status: 1 year project
Date Initiated: 1990
Total Cost:
Federal: \$ 200,000
State: 0

Publications: none

ANADROMOUS FISH CONSERVATION ACT

Project: Determination of striped bass life history characteristics.

Project number: AFC-42-1

Purpose: To collect data on life histories of striped bass to understand the species biology to develop a management response to reduced populations levels.

Contact: Gary Saul
Agency: Texas Department of Parks & Wildlife
Status: 1 year project
Date Initiated: 1990
Total Cost:
Federal: \$ 5,000
State: 5,000

Publications: none

VIRGIN ISLANDS

INTERJURISDICTIONAL FISHERIES ACT

Project: Virgin Islands fisheries research and assessment for interjurisdictional species.

Project number: 2-IJ-11

Purpose: Study baitfish to determine seasonality, species composition, abundance, distribution and commercial value to achieve optimum sustained use of this resource.

Contact: James Beets
Agency: Department of Planning & Natural Resources
Status: 3 year project
Date Initiated: 1988
Current Year Cost:
Federal: \$ 17,076
State: 0

Cost over life project
Federal: \$ 53,709
State: 0

Publications: none

NORTHWEST REGION

The Northwest Region encompasses nine states - two coastal states and seven inland states, as listed below. In addition, the Pacific States Marine Fisheries Commission and the Pacific Fishery Management Council are located in the Northwest, and the Region administers the grants to these entities also. The majority of the appropriated grant funds in the Northwest support projects by the coastal states that are necessary for federal management of salmon and groundfish. Currently, only one of the inland states, Idaho, qualifies for federal funding under NMFS grant programs. Information on the fiscal year 1990 federally funded projects is available from:

National Marine Fisheries Service
Northwest Regional Office
7600 Sand Point Way N.E.
Seattle, WA 98115

Rolland A. Schmitten, Regional Director
Joe Scordino, Fisheries Management Division
Telephone (206) 526-6140

States:

Colorado	South Dakota
Idaho	Utah
Montana	Washington
North Dakota	Wyoming
Oregon	

HIGHLIGHTS OF THE NORTHWEST REGION GRANT ACTIVITIES

In fiscal year 1990, the Northwest Region grant funds continued to be used primarily for projects that support management of fisheries under the Magnuson Act. Most of the Northwest Region's funding under the Interjurisdictional Fisheries Act and the Anadromous Fish Conservation Act were allocated to the coastal states of Washington and Oregon for fisheries monitoring projects in support of the Pacific Fishery Management Council's Fishery Management Plans for salmon and groundfish.

All of the fiscal year 1990 Anadromous Fish Conservation Act funding totalling about \$1,050,000 for the Northwest Region were used in projects that directly support management of salmon under the Pacific Council's Salmon Fishery Management Plan and the U.S./Canada Pacific Salmon Treaty. Historically, the Pacific salmon fishery is the most valuable and most controversial fishery in the Northwest. Problems within the fishery are a result of dwindling stocks, a highly mobile and overcapitalized commercial fishing fleet, increasing recreational interest, obligations to treaty Indian tribes, obligations under the U.S./Canada Pacific Salmon Treaty, and the necessary interaction of a myriad of affected state, federal and tribal management entities. Management of mixed stocks, some of which are depressed, requires continuous data collection, analysis, and monitoring of the catch coastwise to meet escapement and allocation goals.

The Northwest Region received about \$354,000 of fiscal year 1990 Interjurisdictional Fisheries Act (IJFA) funds for the states of Washington, Oregon and Idaho. In addition, \$110,000 was received for the Pacific States Marine Fisheries Commission (PSMFC). Both Washington and Oregon used the majority of their IJFA funds for groundfish projects that support the Pacific Council's Groundfish Fishery Management Plan. The coastal states IJFA funds also were used to support projects on pink shrimp and Dungeness crab. Idaho used its IJFA funding to collect data needed for steelhead stock separation in the Snake River. The remainder of the inland states did not qualify for funding under the IJFA. The PSMFC used its IJFA funding to coordinate potential development of interstate plans

on interjurisdictional species such as Dungeness Crab and to implement PSMFC's "Interjurisdictional Fishery Management Plan for Thresher Shark."

PROJECT DESCRIPTIONS

The following is a description of the projects that were initiated or ongoing in the Northwest in 1990. The projects listed below are alphabetically arranged by state. Projects include an "AFC" or an "IJ" in their project title to designate whether they are funded under the Anadromous Fish Conservation Act (AFC) or the Interjurisdictional Fisheries Act (IJ). The number following the AFC and the IJ codes refers to the number of projects that have been approved under the program in a particular Region. The number preceding the IJ or AFC denotes the Region in which the project is funded: "1" denotes the Northwest Region. For example, project number "1-IJ-6" means the sixth project approved under the Interjurisdictional Fisheries Act in the Northwest Region.

IDAHO

INTERJURISDICTIONAL FISHERIES ACT

Project: Stock Separation of Wild Summer Steelhead in the Snake River Basin

Project Number 1-IJ-10

Purpose: Collect information on the two stocks of wild summer-run steelhead in the Snake River.

Contact: Dexter Pitman

Agency: Idaho Department of Fish and Game

Status: 2 year project

Date Initiated: 1990

Current Year Cost:

Federal: \$ 17,076
State: 5,692

Cost over life of project:

Federal \$ 35,950
State: 11,980

Publications:

OREGON

INTERJURISDICTIONAL FISHERIES ACT

Project: Columbia Area Groundfish Assessment/Fishery Management Plan Support.

Project Number 1-IJ-3

Purpose: Collect and analyze fisheries and stock assessment information on west coast groundfish off Oregon needed for management under the Pacific Fishery Management Council's Groundfish Fishery Management Plan.

Contact: Robert Demory

Agency: Oregon Department of Fish and Wildlife

Status: 3 year project

Date Initiated: 1990

Current Year Cost:

Federal: \$ 60,457
State: 20,153

Cost over life of project:

Federal: \$ 148,933
State: 49,645

Publications: PFMC, 1990a

Project: Shrimp Resource Assessment

Project Number 1-IJ-4

Purpose: Collect fishery and biological data on pink shrimp needed to manage the commercial fishery off Oregon in coordination with other coastal states.

Contact: Robert Hannah

Agency: Oregon Department of Fish and Wildlife

Status: 3 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 71,482
State: 23,827

Cost over life of project:

Federal: \$ 169,034
State: 56,345

Publications:

ANADROMOUS FISH CONSERVATION ACT

Project: Joint Oregon-Washington multi-jurisdictional salmon management program.

Project Number: AFC-134

Purpose: Obtain information necessary for salmon management under the Pacific Fishery Management Council's Salmon Fishery Management Plan. This joint project with Washington consists of three tasks which: 1) monitor the commercial and recreational ocean salmon fisheries in Oregon; 2) apply, recover and decode coded wire tags; and 3) assess stock abundance and distribution.

Contact: Rodney Kaiser, Emory Wagner, and Bob Garrison

Agency: Oregon Department of Fish and Wildlife

Status: 5 year project

Date Initiated: 1989

Current Year Cost:

Federal: \$ 491,192
State: 245,596

Cost over life of project:

Federal: \$ 3,002,000
State: 1,501,000

Publications: PFMC, 1990b; Hess and King, 1990

PACIFIC STATES MARINE FISHERIES COMMISSION

INTERJURISDICTIONAL FISHERIES ACT

Project: Investigation and management of the Pacific Coast Thresher Shark Fishery

Project Number 1-IJ-1

Purpose: Develop and implement an interstate fishery management plan for thresher shark off Washington, Oregon, and California.

Contact: Dave Hanson

Agency: Pacific States Marine Fisheries Commission

Status: Completed

Date Initiated: 1988

Current Year Cost:

Federal: \$ 0
State: 0

Cost over life of project:

Federal: \$ 113,649
State: 0

Publications: PSMFC, 1990a

Project: Southeast Alaska Rockfish Plan Development.**Project Number** 1-IJ-2

Purpose: Prepare a draft fishery management plan for Southeast Alaska rockfish, conduct hearings to obtain public input, and prepare draft regulations to implement the plan.

Contact: Guy Thornburgh**Agency:** Pacific States Marine Fisheries Commission**Status:** Completed**Date Initiated:** 1989**Current Year Cost:**

Federal: \$ 0
State: 0

Cost over life of project:

Federal: \$ 48,684
State: 0

Publications: PSMFC, 1990b

Project: Interjurisdictional Fisheries Management Plan Coordination and Development**Project Number** 1-IJ-9

Purpose: Coordinate the development and monitoring of interstate fishery management plans on various west coast interjurisdictional fish species.

Contact: Guy Thornburgh**Agency:** Pacific States Marine Fisheries Commission**Status:** 5 year project**Date Initiated:** 1988**Current Year Cost:**

Federal: \$ 110,000
State: 0

Cost over life of project:

Federal: \$ 497,000
State: 0

Publications: None

ANADROMOUS FISH CONSERVATION ACT**Project: Regional Mark Processing Center for coded-wire tags and fin marks.****Project Number** AFC-132

Purpose: Maintain a readily accessible coastwise database for identification of coded-wire tagged salmon stocks released and recovered off the west coast of Washington, Oregon, California, Alaska and Canada.

Contact: J. Kenneth Johnson**Agency:** Pacific States Marine Fisheries Commission**Status:** 5 year project**Date Initiated:** 1989

Current Year Cost:

Federal: \$ 67,500
State: 33,750

Cost over life of project:

Federal: \$ 367,500
State: 168,750

Publications:

WASHINGTON**INTERJURISDICTIONAL FISHERIES ACT**

Project: Coastal groundfish monitoring, management and stock assessment.

Project Number 1-IJ-5

Purpose: Collect and analyze fisheries and stock assessment information on west coast groundfish off Washington as needed for management under the Pacific Fishery Management Council's Groundfish Fishery Management Plan.

Contact: Jack Tagart and Alan Millikan

Agency: Washington Department of Fisheries

Status: 5 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 116,797
State: 12,977

Cost over life of project:

Federal: \$ 627,375
State: 114,906

Publications: PFMC, 1990a; Lai et. al, (in press); Rickey and Lai, 1990; Tagart, 1990.

Project: Coastal pink shrimp study.

Project Number 1-IJ-6

Purpose: Collect fishery and biological data on pink shrimp needed to manage the commercial fishery off Washington in coordination with other coastal states.

Contact: Michael Gross

Agency: Washington Department of Fisheries

Status: 5 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 44,055
State: 14,685

Cost over life of project:

Federal: \$ 207,965
State: 69,360

Publications:

Project: Coastal dungeness crab management.

Project Number 1-IJ-7

Purpose: Collect fishery and biological data on Dungeness crab needed to manage the commercial fishery off Washington in coordination with other coastal states.

Contact: Steve Barry

Agency: Washington Department of Fisheries

Status: 5 year project

Date Initiated: 1988

Current Year Cost:

Federal: \$ 44,055
State: 14,685

Cost over life of project:

Federal: \$ 213,100
State: 71,000

Publications:

ANADROMOUS FISH CONSERVATION ACT

Project: Joint Washington-Oregon multi-jurisdictional salmon management program.

Project Number AFC-133

Purpose: Obtain information necessary for salmon management under the Pacific Fishery Management Council's Fishery Management Plan. This joint project with Oregon consists of three tasks which: 1) monitor the commercial and recreational ocean salmon fisheries in Washington; 2) apply, recover and decode coded wire tags; and 3) assess stock abundance and distribution.

Contact: Richard Lincoln, Morris Barker, Lee Blankenship and Jim Shaklee

Agency: Washington Department of Fisheries

Status: 5 year project

Date Initiated: 1989

Current Year Cost:

Federal: \$ 491,192
State: 245,596

Cost over life of project:

Federal: \$ 3,088,000
State: 1,544,000

Publications: PFMC, 1990a; Hess and King, 1990; Shaklee and Phelps, 1990; Busac, 1990; Marshall et al., 1990; Markey et al. 1990; Shaklee et al., 1990; Phelps, 1990; Shaklee et al., 1190b; Shaklee et al., 1990c.; Klaybor and Phelps, 1990.

SOUTHWEST REGION

The Southwest Region of the National Marine Fisheries Service includes 4 states and 6 Pacific island entities. The states and territories of the Southwest Region are listed below. Information on the fiscal year 1990 federally funded projects is available from:

National Marine Fisheries Service
Southwest Regional Office
300 South Ferry Street
Terminal Island, California 90731

E. Charles Fullerton, Regional Director
James Morgan, Grant-In-Aid Coordinator
Phone: 213-514-6667

States:

Arizona
California

Hawaii
Nevada

Territories:

American Samoa
Commonwealth of the
Northern Mariana Islands
Federated States of Micronesia

Guam
Republic of the Marshall
Islands
Republic of Palau

HIGHLIGHTS OF THE SOUTHWEST REGION GRANT ACTIVITIES

In 1990, the Hawaii Division of Aquatic Resources began experimental tagging of deep water bottomfish. The ultimate purpose of this effort is to obtain the ability to assess the movement, population size, population structure, and fishing mortality of such species as the snapper *Pristipomoides filamentosus*), which is known in Hawaii as opakapaka. The task involves bringing fish up from 50-60 fathoms, removing gas from each animal's body resulting from the pressure change and attaching a tag that is easily recognizable but does not injure the fish. This method, if successful, could be very useful on isolated banks and artificial reefs, from which there apparently is little out-migration of the resident population.

Through the Guam Department of Commerce, the University of Guam began collecting otoliths from fish such as marlin, dolphin fish, tuna, bottomfish, and groupers. Counting the growth rings on these otoliths and compiling the data will increase the information available in the western Pacific for assessing growth, population structure, age at maturity, and mortality.

The American Samoa Department of Marine and Wildlife Resources began sampling bottomfish and pelagic species in Samoan waters for indication of population stress. These indicators include catch-per-unit effort, mean size, and percentage of mature fish in the harvest.

PROJECT DESCRIPTIONS

The following is a description of the projects that were initiated, completed and ongoing in the Southwest. The projects that end in an "R" or "D" (Research or Development) refer to the Commercial Fisheries Research and Development Act (P.L. 88-309); no new projects are being funded under this Act, only projects still underway but not completed. Those projects that are listed with an "IJ" are funded under the Interjurisdictional Fisheries Act (Title III of P.L. 99-659). Those projects listed with an "AFC" prefix are funded under the Anadromous Fish Conservation Act (P.L. 89-304). All projects are alphabetically listed by state. All projects within a state list the 89-304 projects first then the 99-659 projects. The number following the AFC and IJ codes refers to the number

of projects that have been approved in that region under that particular program. For instance, 4-IJ-4 means that the project is the fourth project approved under the Interjurisdictional Fisheries Act in the Southwest Region, The first "4" in the designation refers to the Southwest Region.

AMERICAN SAMOA

INTERJURISDICTIONAL FISHERIES ACT

Project: Implementation of upgraded information system.

Project Number: 4-IJ-6

Purpose: Replace existing computer hardware and train staff in the use of software to improve the American Samoa data collection system.

Contact: Henry Sesepasara

Agency: Department of Marine and Wildlife Resources

Status: 2 year project (extended at no cost)

Date Initiated: 1989

Current Year Cost:

Federal: \$ 0

State: 0

Cost over life of project:

Federal: \$ 76,994

State: 9,260

Publications: none

Project: Future viability of the tuna canneries in American Samoa.

Project Number: 4-IJ-9

Purpose: Analyze the future economic potential of existing tuna processing in American Samoa.

Contact: Henry Sesepasara

Agency: Department of Marine and Wildlife Resources

Status: 1 year project

Date Initiated: 1990

Current Year Cost:

Federal: \$ 34,713

State: 0

Cost over life of project:

Federal: \$ 34,713

State: 0

Publications: none

Project: Sea watch Samoa.

Project Number: 4-IJ-10

Purposes: Production of educational videos in Samoan and English on changing Samoan fisheries and the need for conservation.

Contact: Henry Sesepasara

Agency: Department of Marine and Wildlife Resources

Status: 1 year project (Completed)

Date Initiated: 1989

Current Year Cost:

Federal \$ 20,996

State: 0

Cost over life of project:

Federal: \$ 20,996

State 0

Publications: none

Project: Biological indicator sampling.

Project Number: 4-IJ-16

Purposes: Collect biological information on interjurisdictional resources that will serve as baseline data for indications of biological stress.

Contact: Henry Sesepasara

Agency: Department of Marine and Wildlife Resources

Status: 1 year project

Date Initiated: 1990

Current Year Cost:

Federal \$ 68,882

State: 0

Cost over life of project:

Federal: \$ 68,882

State: 0

Publications: none

Project: Construction of interjurisdictional fisheries building.

Project Number: 4-IJ-17

Purposes: Provide administration and laboratory space for the department's interjurisdictional fisheries branch.

Contact: Henry Sesepasara

Agency: Department of Marine and Wildlife Resources

Status: 1 year project

Date Initiated: 1990

Current Year Cost:

Federal \$ 93,000

State: 30,000

Cost over life of project:

Federal: \$ 155,000

State: 30,000

Publications: none

CALIFORNIA

COMMERCIAL FISHERIES RESEARCH AND DEVELOPMENT ACT

Project: Southern California commercial fisheries assessment.

Project Number: 4-79-D

Purposes: Monitoring of southern California fishery resources at wholesale fish dealers. assessment of interactions between gill nets and marine mammals. Assessment of harbor porpoise and harbor seal populations.

Contact: Richard Klingbeil

Agency: Department of Fish and Game

Status: 6 year project

Date Initiated: 1986

Current Year Cost:

Federal: \$ 0

State: 0

Cost over life of project:

Federal: \$ 492,244

State: 164,081

Publications: none

Project: Sacramento River chinook study.

Project Number: 4-90-D

Purposes: Assessment of Sacramento River chinook salmon runs.

Contact: Richard Painter and Bill Snider

Agency: Department of Fish and Game

Status: 4 year project

Date Initiated: 1987

Current Year Cost:

Federal: \$ 0

State: 0

Cost over life of project:

Federal: \$ 99,509

State: 33,170

Publications: none

ANADROMOUS FISH CONSERVATION ACT

Project: Salmon and steelhead research, management, and enhancement.

Project Number: AFC-22

Purposes: Monitor California salmon landings and assess salmon populations in the Klamath River.

Contact: Paul M. Hubbell

Agency: Department of Fish and Game

Status: 1 year project (Completed)

Date Initiated: 1989

Current Year Cost:

Federal: \$ 0

State: 0

Cost over life of project:

Federal: \$ 346,975

State: 346,975

Publications: none

Project: Salmon resource assessment, 1990.

Project Number: AFC-23

Purposes: Monitor California salmon landings, determine stock composition, and assess Klamath River salmon resource.

Contact: Paul M. Hubbell

Agency: Department of Fish and Game

Status: 1 year project

Date Initiated: 1990

Current Year Cost:

Federal: \$ 348,627

State: 348,627

Cost over life of project:

Federal: \$ 348,627

State: 348,627

Publications: 1 publication

INTERJURISDICTIONAL FISHERIES ACT

Project: Assessment and management of selected California commercial fisheries.

Project Number: 4-IJ-8

Purposes: Dockside sampling of southern California fisheries, fishery independent sampling, and assessment of live bait fishery.

Contact: Eugene Fleming
Agency: Department of Fish and Game
Status: 1 year project
Date Initiated: 1989 (Completed)

Current Year Cost:

Federal: \$ 0
State: 0

Cost over life of project:

Federal: \$ 230,220
State: 76,740

Publications: none

Project: Assessment and management of commercial fisheries.

Project Number: 4-IJ-13

Purposes: Collect and analyze fisheries data from the southern California commercial fisheries.

Contact: Eugene Fleming
Agency: Department of Fish and Game
Status: 1 year project
Date Initiated: 1990

Current Year Cost:

Federal: \$ 204,907
State: 68,303

Cost over life of project:

Federal: \$ 204,907
State: 68,303

Publications: none

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

INTERJURISDICTIONAL FISHERIES ACT

Project: Marianas Fish Biology Program.

Project Number: 4-IJ-7

Purposes: Grouper resource assessment and data maintenance.

Contact: Arnold I. Palacios
Agency: Division of Fish and Wildlife
Status: 1 year project
Date Initiated: 1989 (Completed)

Current Year Cost:

Federal: \$ 0
State: 0

Cost over life of project:

Federal: \$ 58,785
State: 0

Publications: none

Project: Marianas grouper biology program.

Project Number: 4-IJ-12

Purposes: Determine biological characteristics of grouper species in the Northern Mariana Islands.

Contact: Arnold I. Palacios
Agency: Division of Fish and Wildlife
Status: 1 year project
Date Initiated: 1990

Current Year Cost:
Federal: \$ 34,151
State: 0

Cost over life of project:
Federal: \$ 34,151
State: 0

Publications: none

GUAM

INTERJURISDICTIONAL FISHERIES ACT

Project: Stock characterization of fisher resources.

Project Number: 4-IJ-1

Purposes: Develop expertise in Guam in the techniques of otolith and mitochondrial DNA analysis to identify interjurisdictional fishery stocks.

Contact: Peter R. Barcinass
Agency: Guam Department of Commerce
Status: 1 year project (Completed)
Date Initiated: 1989

Current Year Cost:

Federal: \$ 0
State: 0

Cost over life of project:

Federal: \$ 9,000
State: 0

Publications: none

Project: Data collection and analysis.

Project Number: 4-IJ-5

Purposes: Collect and analyze data from longline and purse seine vessels off-loading their catch in Guam.

Contact: Peter R. Barcinass
Agency: Guam Department of Commerce
Status: 1 year project (Completed)
Date Initiated: 1989

Current Year Cost:

Federal: \$ 0
State: 0

Cost over life of project:

Federal: \$ 10,185
State: 0

Publications: none

Project: Longline and purse seine data collection.

Project Number: 4-IJ-14

Purposes: Collect and prepare otolith samples for age determination.

Contact: Peter R. Barcinas
Agency: Guam Department of Commerce
Status: 1 year project
Date Initiated: 1990

Current Year Cost:

Federal: \$ 10,718
State: 0

Cost over life of project:

Federal: \$ 10,718
State: 0

Publications: none

Project: Longline and purse seine data collection.

Project Number: 4-IJ-15

Purposes: Collect fisheries data from longline and purse seine vessels off-loading their catch in Guam.

Contact: Peter R. Barcinas

Agency: Guam Department of Commerce

Status: 1 year project

Date Initiated: 1990

Current Year Cost:

Federal: \$ 6,358

State: 0

Cost over life of project:

Federal: \$ 6,358

State: 0

Publications: none

HAWAII

COMMERCIAL FISHERIES RESEARCH AND DEVELOPMENT ACT

Project: Hawaii small scale fishing vessel survey.

Project Number: 4-92-D

Purposes: Determine the size of the commercial and recreational harvest of the small vessel fleet.

Contact: Henry M. Sakuda

Agency: Department of Aquatic Resources

Status: 4 year project

Date Initiated: 1987

Current Year Cost:

Federal: \$ 113,110

State: 37,708

Cost over life of project:

Federal: \$ 113,110

State: 37,708

Publications: none

INTERJURISDICTIONAL FISHERIES ACT

Project: Revision of Hawaii's commercial fisheries charts.

Project Number: 4-IJ-4

Purpose: Revise statistical charts to embrace all state and federal fisheries' requirements within three miles and the EEZ.

Contact: Walter Ikahara

Agency: Division of Aquatic Resources

Status: 2 year project (Completed)

Date Initiated: 1988 (Projected extended)

Current Year Cost:

Federal: \$ 0

State: 0

Cost over life of project:

Federal: \$ 29,831

State: 9,939

Publications: none

Project: Revision of Hawaii's Commercial Fisheries Data Reporting System.

Project Number: 4-IJ-11

Purpose: Revise current procedures of collecting, editing, and checking data collected from commercial fishermen.

Contact: Reginald Kokubun

Agency: Division of Aquatic Resources

Status: 1 year project (Completed)

Date Initiated: 1989

Current Year Cost:

Federal: \$ 0

State: 0

Cost over life of project:

Federal: \$ 38,730

State: 12,800

Publications: none

Project: Bottomfish tagging techniques.

Project Number: 4-IJ-18

Purpose: Develop tagging techniques for deep water bottomfish species for research into population dynamics of important species.

Contact: Eric Onezuka

Agency: Division of Aquatic Resources

Status: 1 year project

Date Initiated: 1990

Current Year Cost:

Federal: \$ 34,151

State: 11,919

Cost over life of project:

Federal: \$ 34,151

State: 11,919

Publications: none

ALASKA REGION

The Alaska Region involves only one state, but it includes about 59% (47,300 miles) of the total U.S. marine coastline and 55% (830,000 square miles) of the U.S. continental shelf. Thus, this region is a fertile area of fisheries resources and has a large need for information from its extensive commercial, recreational and subsistence fisheries. The Alaska Region is actively involved in projects using grant-in-aid funds from the Anadromous Fish Conservation Act and the Interjurisdictional Fisheries Act. Information on the fiscal year 1990 federally funded projects is available from the region's Grant-In-Aid Coordinator.

National Marine Fisheries Service
Alaska Regional Office
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Juneau, Alaska 99802-1668

Steve Pennoyer, Regional Director
Aven Andersen, Grant-In-Aid Coordinator
Fisheries Management Division
Telephone: 907 (& FTS)-586-7228

State of Alaska:
Carl L. Rosier, Commissioner
Alaska Department of Fish and Game
Box 3-2000
Juneau, AK 99802-2000

HIGHLIGHTS OF THE ALASKA REGION GRANT ACTIVITIES

In Fiscal Year 1990, the Alaska Region received \$428,193 under the Anadromous Fish Conservation Act (P.L. 89-304). The Region apportioned \$404,600 of this amount to the Alaska Department of Fish and Game (ADF&G) and \$23,551 to the University of Washington's Fisheries Research Institute. The Alaska Region received \$204,907 under the Interjurisdictional Fisheries Act (P.L. 99-659) and apportioned all of it all to ADF&G. These funds supported research projects directed at the management of Alaska's salmon, herring, and groundfish fisheries.

The Anadromous Fish Act projects included studies on sockeye, pink, chum, coho, and chinook salmon in Southeast Alaska and sockeye salmon at Chignik, Alaska. These salmon projects supported management of commercial fisheries that in 1990 landed over 41 million salmon having an ex-vessel value (amount paid to fishermen) of about \$104 million. (The total 1989 Alaska commercial salmon harvest was the second largest on record and amounted to more than 151 million fish, weighing a total of 713 million pounds, and worth about \$540 million). Results of the anadromous fish studies were used, in part, to implement the Pacific Salmon Treaty and manage the commercial troll and recreational salmon fisheries under the Magnuson Fishery Conservation and Management Act.

Funds provided by the Interjurisdictional Fisheries Act supported management of fisheries for stocks of groundfish and Pacific herring in the eastern part of the Gulf of Alaska and the internal marine waters of Southeast Alaska. These stocks migrate between Canadian and U.S. waters and between State of Alaska waters and the U.S. Exclusive Economic Zone off the coast of Alaska. The 1990 groundfish fisheries in the eastern Gulf of Alaska had a total harvest of about 48 million pounds with an ex-vessel value of about \$9.6 million. The 1990 Southeast Alaska commercial, subsistence, and personal use herring fisheries landed about 17.8 million pounds. The commercial

landings of herring sac roe, spawn-on-kelp, and whole herring amounted to an ex-vessel value of about \$3.5 million, similar to 1989.

PROGRAM ANALYSIS

The following is a description of the projects that were initiated, completed, or are ongoing during 1990. All projects were conducted in Alaska and are listed by grant, with the Anadromous Fisheries Act projects listed first, followed by the Interjurisdictional Fisheries Act projects.

Each project is assigned a code. The projects that end in an "AFC" prefix are funded under the Anadromous Fish Conservation Act; Those with an "IJ" are funded under the Interjurisdictional Fisheries Act. The number preceding the letter code (5) is the designation for the Alaska Region. The number following the letter code, refers to the number of projects approved in that region under that particular program, for instance, 5-IJ-4 means that is the fourth project approved under the Interjurisdictional Fisheries Act in the Alaska Region.

ANADROMOUS FISH CONSERVATION ACT

Project Description: Southeast Alaska Salmon Studies (4 parts)

Project Number 5-AFC-77

General Purpose -- Work to improve techniques for assessing salmon abundance; index abundance to provide commercial fishery managers information for managing harvests; and obtain information on migration routes, run timing, relative abundance, and contribution of key salmon stocks.

Agency: Alaska Department of Fish and Game.

Status: 5 year project

Date Initiated: 1986

Current Year Cost:

Federal: \$	404,600
State:	415,900

Cost over life of project:

Federal: \$	2,173,000
State:	2,100,400

Purpose (Part 1): Pink Salmon Forecast Research Program. The direction of the program shifted this year because the information on early marine life did not help improve the forecasts. The program focused on improving weekly predictions, improving accuracy of spawning escapement counts, and using narrow-beam, side-scanning sonar to estimate fry biomass during the early marine period.

Contact: Karl Hofmeister

Phone: (907) 465-4250

Publications: Hofmeister 1990; Geiger and Savikko 1990.

Purpose (Part 2): Salmon Harvest Sampling.

This 1990 study continued the monitoring of the commercial and recreational salmon harvests in Southeast Alaska. Approximately 20% of the harvest was sampled in various ports throughout Southeast Alaska to recover coded-wire tags. The information from the tags was used to estimate migration routes, run timing, relative abundance, exploitation rates, and contribution rates of various salmon stocks and to determine when harvest limits were reached. In addition, fishermen were interviewed to obtain vessel information, fishing effort, and daily catch. Also, the harvests and spawning escapements were sampled to obtain information on age, sex, and sizes of salmon for use in evaluating and forecasting returns. This project is important to ensure compliance of the Alaskan fisheries with the Pacific Salmon Treaty.

Contact: Glen T. Oliver

Phone: (907) 465-4250

Publications: Dangle (in prep.); Oliver 1990; Pahlke (in prep.); Rowse (in prep.); Rowse, McPherson, and Olson (in prep.); and Wood (in prep.)

Purpose (Part 3): Troll Fishery Performance Monitoring

Monitor catch and effort in the commercial troll fishery to ensure harvest guidelines established by the Alaska Board of Fisheries and the Pacific Salmon Commission are not exceeded; edit and enter fish tickets; monitor and assess hook-and-release of chinook salmon during nonretention periods; and provide reports on the fishery.

Contact: Alan Davis or Jeff Kelly

Phone: (907) 747-46688

Publications: Davis and Kelly, 1990.

Purpose (Part 4): Southeast Alaska Coho Salmon Studies: Wild juvenile coho salmon were tagged with coded-wire tags and returning adult coho were counted and sampled in several stream systems of Southeast Alaska to estimate total spawning escapement, contributions to the fisheries, migratory patterns, age structure, and survival rates. In addition, fisheries were studied to determine harvest rates by area and gear type, and spawning escapements were determined by weirs and in-stream studies.

Contact: Leon Shaul

Phone: (907) 465-4250

Publications: Elliott and Kuntz, (in press); Elliot and Sterritt (in press); Schmidt (in press); Shaul 1990 (in press); Suchanek and Bingham, (in press); and wood (in press).

Project Description: Chignik sockeye and coho studies

Project Number: 5-AFC-78

Purpose: These studies at Chignik and Black Lakes in Alaska are aimed at determining why the number of the returning adult sockeye salmon varies so much from year to year, particularly to Black Lake. This 1990 study investigated the hypothesis that the fluctuations are related to the Black Lake's morphological characteristics, especially its relatively shallow depth and a variable sand bar that partially divides the lake.

Contact: Donald E. Rogers

Agency: University of Washington, Fisheries Research Institute

Phone: (206) 543-7546

Status: 4th of 5 Years

Date Initiated: 1987

Current Year Cost:

Federal: \$ 23,551

U. of W: 28,675

Cost over life of project:

Federal: 102,388

State: 111,650

Publications: Ruggerone, 1989 and 1991; Ruggerone & Rogers (in review)

INTERJURISDICTIONAL FISHERIES ACT

Project Description: Southeast Alaska Groundfish and Herring Research (2 parts, both parts are included in the costs figures, not individually)

Project Number: 5-IJ-2

Purpose (Part 1, Groundfish studies): Collect fishing effort and harvest statistics and biological information necessary for State management of certain groundfish fisheries the Eastern Gulf of Alaska. Specific tasks include (a) collect catch (harvest plus discard) by species, month and gear type, (b) collect biological data (length, weight, sex, maturity, and ages) from certain key species from landings and stocks assessment surveys, (c) continue the longline and trawl logbook programs, (d) conduct resource assessment and tagging studies on sablefish and rockfish, and (e) implement closures of the fisheries when harvest limits have been reached.

Contact: Barry Bracken

Phone: (907) 772-3801

Purpose (Part 2): (a) continue collecting and analyzing acoustic data for assessing biomasses of major Southeast Alaska herring stocks; (b) collect age and size data from major SE AK herring stocks to determine stock conditions; (c) conduct surveys of herring spawning grounds to assess success of spawnings, and (d) manage the herring fisheries as necessary.

Contact: Tim a. Minicucci

Phone: (907) 225-9877

Agency: Alaska Department of Fish and Game

Status: 5 year project

Date Initiated: 1986

Current Year Cost:

Federal	204,907
State:	68,302

Cost over life of project:

Federal:	287,820
State:	358,240

Publications: Bracken, 1989, 1990a, 1990b (in press); Funk and Avikko, 1990; Mimicucci 1990.

**ADMINISTRATIVE ORGANIZATIONS
NONFEDERAL COOPERATORS**

STATE	AGENCY	ADDRESS
Alabama	James D. Martin, Commissioner Dept. of Conservation & Natural Resources (205) 261-3486	State Admin. Bldg. 64 N. Union St. Montgomery 36130
	Wayne Shell Auburn University, Fisheries Dept.	Swingle Hall Auburn 36849
Alaska	Carl L. Rosier, Commissioner Dept. of Fish & Game (907) 465-4100	Box 3-2000 Juneau 99802
Arizona	Duane L. Shroufe, Director Dept. of Fish & Game (602) 942-3000	2222 W. Greenway Rd. Phoenix 85023
Arkansas	Steve N. Wilson, Director Game & Fish Commission (501) 223-6300	2 Nat. Resrc. Dr. Markham & I-430 Little Rock 72205
California	Peter J. Bontadelli, Director Dept. of Fish & Game (916) 445-5095	1416 Ninth Street Sacramento 95814
Colorado	James B. Ruch, Director Division of Wildlife Dept. of Natural Resources (303) 866-3311	6060 Broadway Denver 80216
Connecticut	Dennis P. DeCarli, Deputy Commissioner Dept of Environmental Protection (203) 566-4856	State Office Bldg. 165 Capitol Ave., Rm 243 Hartford 06106
Delaware	William C. Wagner, II, Director Division of Fish & Wildlife Dept. of Natural Resources & Environmental Control (302) 736-5295	P.O. Box 1401 Dover 19903
Florida	Thomas E. Gardner Executive Director Dept. of Natural Resources (904) 488-1555	3900 Cmnwlth Blvd. Tallahassee 32303
Georgia	Joe D. Tanner, Commissioner Game & Fish Division Dept. of Natural Resources (404) 656-3500	Floyd Towers E. 205 Butler St. S.E. Suite 1252 Atlanta 30334

STATE	AGENCY	ADDRESS
Hawaii	Mr. Henry M. Sakuda, Director Division of Aquatic Resources Dept. of Land & Natural Resources (808) 548-4000	1151 Punchbowl St. Honolulu 96813
Idaho	Jerry M. Conley, Director Dept. of Fish & Game (208) 334-5159	600 S. Walnut P.O. Box 25 Boise 83707
Illinois	Mark Frech, Director Dept. of Conservation (217) 782-6302	Lincoln Tower Plaza 524 South Second Street Springfield 62701-1787
Indiana	Wayne Bivans, Director Division of Fish & Wildlife Dept. of Natural Resources (317) 232-4080	402 W. Washington St. Room 264 Indianapolis 46203
Iowa	Larry J. Wilson, Director Dept. of Natural Resources (515) 281-8663	Wallace State Off. Bldg. 9th & Grand Des Moines 50319
Kansas	Robert L. Meinen, Secretary Dept. of Wildlife & Parks (913) 296-2281	900 Jackson St. Suite 502 Topeka 66612-1220
Kentucky	Don R. McCormick, Commissioner Dept. of Fish & Wildlife Resources (502) 564-3400	Arnold L. Mitchell Bldg. Game Farm Rd. Frankfort 40601
Louisiana	A. Kell McInnis III, Acting Secretary Division of Fisheries Dept. of Wildlife & Fisheries (504) 765-2803	P.O. Box 98000 Baton Rouge 70898
Maine	William J. Brennan, Commissioner Dept. of Marine Resources (207) 289-2291	State House Station 21 Augusta 04333
Maryland	Dr. Paul Massicot, Administrator Tidewater Administration Dept. of Natural Resources (301) 974-2926	Tawes State Office Bldg. Annapolis 21401
Massachusetts	Philip G. Coates, Director Division of Marine Fisheries (617) 727-3193	Leverett Saltonstall Bldg. 100 Cambridge St. Boston 02202
Michigan	Delbert Rector, Director Dept. of Natural Resources (517) 373-2329	Stevens T. Mason Bldg. Box 30028 Lansing 48909
Minnesota	Dr. Larry R. Shannon, Director Division of Fish & Wildlife (612) 297-1308	Box 20, 500 Lafayette Road St. Paul 55146

STATE:	AGENCY:	ADDRESS:
Mississippi	Arnold J. Herring, Acting Exec. Dir. Dept. of Wildlife, Fisheries and Parks (601) 961-5300	Box 451 Jackson 39205
Missouri	Jerry J. Presley, Director Dept. of Conservation Fisheries Division (314) 751-4115	P.O. Box 180 Jefferson City 65101
	Leslie S. Uhazy University of Missouri Columbia 62211	Division of Biological Science
Montana	Patrick J. Graham, Administrator Dept. of Fish, Wildlife & Parks Fisheries Division (406) 444-2449	1420 E. Sixth Ave. Helena 59620
Nebraska	Rex Amack, Director Game & Parks Commission (402) 464-0641	Box 30370 2200 N. 33rd St. Lincoln 68503
Nevada	William A. Molini, Director Dept. of Wildlife (702) 789-0500	1100 Valley Rd. P.O. Box 10678 Reno 89520-0023
New Hampshire	Donald A. Normandeau, Ph.D. Executive Director Fish & Game Dept. (603) 271-3421	2 Hazen Drive Concord 03301
New Jersey	Robert McDowell, Director Div. of Fish, Game & Wildlife Dept. of Environmental Protection (609) 984-6215	CN-400 Trenton 08625
New Mexico	Bill Montoya, Director New Mexico Dept. of Game & Fish (505) 827-7905	Villagra Bldg. Santa Fe 87503
New York	Gordon C. Colvin, Director Division of Marine Resources Dept. of Environmental Conserv. (516) 751-7900	Building 40, SUNY Stony Brook 11794
North Carolina	William Hogarth, Director Dept. of Environment, Health Natural Resources (919) 726-7021	Box 76 Morehead City, 28557
North Dakota	Dale L. Henegar, Commissioner State Game & Fish Dept. (701) 221-6300	100 North Bismarck Expressway Bismarck 58501

STATE	AGENCY	ADDRESS
Ohio	Frances S. Buchholzer, Director Division of Wildlife Dept. of Natural Resources (614) 265-6300	Fountain Square Building G-2 Columbus 43224
Oklahoma	Steve A. Lewis, Director Dept. of Wildlife Conservation Kim Erickson, Chief Fisheries Div. (405) 521-3851	1801 North Lincoln Oklahoma City 73152
Oregon	Randy Fisher, Director Dept. of Fish & Wildlife (503) 229-5551	506 SW Mill Street P.O. Box 59 Portland 97207
Pennsylvania	Edward R. Miller, Exec. Dir. Pennsylvania Fish Commission (717) 657-4518	P.O. Box 1673 Harrisburg 17105-1673
Rhode Island	John A. Stolgitis, Chief Division of Fish & Wildlife Dept. of Environmental Mgmt. (401) 789-3094	Stedman Gvnt. Cntr. Tower Hill Road Wakefield 02879
South Carolina	James A. Timmerman, Jr. Executive Director, Wildlife & Marine Resources Dept. (803) 734-3988	P.O. Box 167 Columbia 29202
South Dakota	Richard Beringson, Secretary Dept. of Game, Fish & Parks (605) 773-3718	Sigurd Anderson Bldg. 445 E. Capital Pierre 57501
Tennessee	Gary T. Myers, Exec. Director Wildlife Resources Agency (615) 781-6575	P.O. Box 40747 Ellington Ag Cntr. Nashville 37204
Texas	Andrew Sansom, Exec. Director Coastal Fisheries Branch Parks & Wildlife Dept. (512) 389-4802	4200 Smith School Austin 78744
Utah	William H. Geer, Director Division of Wildlife Resources State Dept. of Natural Resources (801) 533-9333	1596 W. North Temple Salt Lake City
Vermont	J. Timothy Van Zandt, Commissioner Dept. of Fish & Wildlife Agency of Environmental Conservation (802) 244-7331	103 South Main St. Waterbury 05676
Virginia	William A. Pruitt, Commissioner Marine Resources Commission (804) 247-2200	P.O. Box 756 Newport News 23607

STATE:	AGENCY:	ADDRESS:
Washington	Joseph R. Blum, Director Dept. of Fisheries (206) 753-6623	Room 115 General Admin. Bldg. Olympia 98504
West Virginia	J. Edward Hamrick, III Dept. of Natural Resources (304) 348-2754	1800 Washington St. East Charleston 25305
Wisconsin	Carroll D. Besadny, Secretary Dept. of Natural Resources (608) 266-2621	Box 7921 Madison 53707
Wyoming	Bill Morris, Director Game & Fish Dept. (307) 777-7631	5400 Bishop Blvd. Cheyenne 82002
TERRITORIES:	AGENCY:	ADDRESS:
American Samoa	Henry Sespasara Office of Marine Resources Government of American Samoa	Pago Pago 96799
Commonwealth of the Northern Mariana Islands	Nicolas M.L. Guerrero, Director Dept. of Natural Resources Office of the Governor Saipan, Mariana	Commonwealth of the Northern Mariana Islands 96950-9729
Guam	Rufo J. Jujan, Chief Aquatic & Wildlife Resources Dept. of Land & Natural Resources (671) 734-3944/5	Agana 96910
Puerto Rico	Santas Rohjina Betancourt, Secretary. Department of Natural Resources (809) 723-3090	Munox Rivera Ave. Stop 3 San Juan 00906
Virgin Islands	Roy E. Adams, Commissioner Dept. of Conservation & Cultural Affairs (809) 774-3320	179 Atona & Wlegunst St. Thomas 00802
INTERSTATE COMMISSIONS:		
Atlantic States Marine Fisheries Commission	John H. Dunnigan Executive Director (202) 387-5330	Suite 310 1400 16th St. NW Washington, D.C. 20036
Gulf States Marine Fisheries Commission	Larry Simpson, Executive Director (601) 875-5912	P.O. Box 726 Ocean Springs, MS 39564
Pacific Marine Fisheries Commission	Guy N. Thornburgh, Executive Director (503) 294-7025	Metro Center, Suite 170 2000 S.W. First Ave. Portland, OR 97201

PUBLICATIONS

In carrying out project activities, about 300 State scientists are continuously employed to gather information to improve fishery knowledge, solve fishery problems, and better manage fishery resources. Since this report was first begun, 20 years ago, these studies have resulted in publications, many of which have appeared in scientific journals or, have been for partial fulfillment of the requirement for advanced degrees from educational institutions. In 1990, 27 new publications resulted from these grants. The project number that the publication resulted from is listed in parentheses, after each citation.

These reports are available directly from the State or organization sponsoring the grant, or the regional grant coordinator. Check with the regional grant coordinator for information on how to acquire any of these publications

- Atlantic States Marine Fisheries Commission. 1989a. A Procedural Plan to Control Interjurisdictional Transfers and Introductions of Shellfish. ASMFC, Washington, D.C. Fisheries Management Report No. 13. 58 pp. (ASMFC 3-IJ-2-1).
- Atlantic States Marine Fisheries Commission. 1989b. Supplement to the Striped Bass FMP-Amendment #4. ASMFC, Washington, D.C. Fisheries Management Report No. 15. 60 pp. (ASMFC AFC-2-1).
- Berlinsky, D.L. 1989. Changes in steroid hormones during oocyte development in the striped bass, Morone saxatilis. M.S. Thesis-University of Rhode Island. 134 pp. (RI AFC-4).
- Bracken, Barry E. 1989. Biology and management of the Southeast Alaska demersal shelf rockfish resource. Alaska Dept. Fish and Game, Regional Information Report No. 1J89-07. 11 pp. (5-IJ-1 part 2)
- Bracken, Barry E. 1990(a). Report to the Board of Chars, 1989 Southeast-Yakutat groundfish fishery. In Report to the Board of Fisheries, Southeast Alaska and Yukutat (Region I) finfish fisheries. Alaska Dept. Fish and Game, Regional Information Report No. 1J90-02, pp 6.1-6.31. (5-IJ-1 part 2)
- Bracken, Barry E. 1990(b). Southeast Alaska and Yukutat Area groundfish investigations , Final Report for the period July 1, 1989 to June 30, 1990. Alaska Dept. Fish and Game, Regional Information Report No. 1J90-17. v + 26 pp. (AK 5-IJ-1 part 2)
- Bracken, Barry E. In press. Alaska groundfish fisheries and associated investigations in 1989. Prepared for the thirty-first annual meeting of the Technical Subcommittee of the Canada-United States Groundfish Committee. Alaska Dept. Fish and Game, Regional Information Report. 17 pp. (AK 5- J-1 part 2)
- Chenowith, S.B., D.A. Libby, R.L. Stephenson, and M.J. Power. 1989. Origin and dispersion of larval herring (*Clupea harengus*) in coastal waters of Eastern Maine and Southwestern New Brunswick. Can. J. Fish. Aquat. Sci. 46(4): 624-632. (ME 3-IJ-34)
- Crites, John L., Overstreet Robin M., 1990 "Heliconmema brooksi - sp. (Nematoda: Physalopteridae) from the Ophichthid eel Ophichthus gomesi in the Gulf of Mexico." (2-IJ-22-2)
- Dangle, J.R. In preparation. Abundance, age, sex, and size of chum salmon catches and escapement in Southeast Alaska in 1989. Alaska Dept. Fish and Game, Division of Commercial Fisheries, Technical Fisheries Report. (AK AFC-77 part 3)

- Davis, Alan and Jeff Kelly. 1990. Southeast Alaska troll fishery performance monitoring, 1988. Alaska Dept, Fish and Game, Regional Information Report No. 1J90-25 v + 31 pp. (AK AFC-77 part 2)
- Elliott, S.T., and D.A. Sterritt. In Press. A study of coho salmon in Southeast Alaska. Alaska Dept of Fish and Game, Sport Fish Division, Fisheries Data Series. (AK AFC-77 part 4)
- Elliott, S.T., and K.J. Kuntz. In Press. A study of coho cell in Southeast Alaska: Chilkat Lake, Chilkoot Lake, Yehring Creek and Vallenar Creek. Alaska Dept. Fish and Game, Sport Fish Division. Fishery Data Series No. 62.
- Fuls, Billy E., Campbell, R. Page, 1190. "Clousre Dates for the 1989 Texas Gulf Shrimping Season." Management Data Series NO. 31, Texas Parks & Wildlife Department, Fisheries Division (2-IJ-13-1)
- Funk, Fritz and Herman Savikko (Editors). 1990. Preliminary forecasts of catch and stock abundance for 1990 Alaska herring Fisheries. Alaska Dept. Fish and Game, Regional Information Report No. 5J90-02. xiii + 92 pp. (5-IJ-2)
- Geiger, Harold J. and Herman Savikko (Editors). 1990. Preliminary forecasts and projections for 1990 Alaska salmon fisheries. Alaska Dept. Fish and Game, Regional Information Report No. 5IJ90-03. vii + 78 pp. (AK AFC-77 part 1)
- Gulf States Marine Fisheries Commision. Edited by Steele, Phil, Perry Harriet M., April 1990 "The Blue Crab Fishery of the Gulf of Mexico, United States: A Regional Management Plan." GSMFC, Ocean Springs, Mississippi. Fisheries Management Report No. 21 (2-IJ-8, all three segments)
- Hess, S. and S. King 1990. The 1989 Lower Columbia River and buoy 10 recreational fisheries. Oregon Dept, Fish and Wildlife, Fish Division Report (WA AFC-133; Or AFC-134)
- Hofmeister, Karl. 1990. Southeast Alaska pink and chum salmon investigations, 1989-90. Final Report for the Period July 1, 1989 to June 30, 1990. Alaska Dept. Fish and Game, Regional Information Report No. 1J90-35. vii + 35 pp. (AK AFC-77 part 4)
- Hoopes, Thomas B. 1989. 1988 Massachusetts Lobster Fishery Statistics. Mass. Div. of Mar. Fish., Technical Series 23. 17 pp. (MA 3-416-D).
- Krouse, J.S. 1989. Performance and Selectivity of Trap Fisheries for Crustaceans. Pages 307-325 In: Marine Invertebrate Fisheries: Their Assessment and Management. J.F. Caddy Ed., John Wiley & Sons, Inc., NY. (ME 3-IJ-33)
- Lai, H., J. Tagart and R. Moore, (in press) Estimation of total catch and effort for ocean sport fisheries in Washington. Washington Dept. Fisheries Progress Report (WA 1-IJ-5).
- Leblanc, Brian D., Robin Overstreet and Jeffry Lotz. 1990. "Relative Resistance to Baculovirus panacis infection by Penaeus setiferus and Comments on Host Specificity." (2-IJ-22-2)
- McKown, K. and B. Young. 1989. Hudson River young-of-the-year striped bass survey. Underwater Naturalist 18(2): 10-13. (NY AFC-14)
- Minicucci, Tim A. 1990. Pacific Herring Research, Southeast Alaska, Final Report for the Period July 1, 1989 to June 30, 1990. Alaska Dept. Fish and Game, Regional Info. Report 1J90-33 vi + 12 pp. (AK 5-IJ-2 part 2)
- Oliver, Glen T. 1990. Southeast Alaska port sampling project, final report for the period July 1, 1989 to June 30, 1990. Alaska Dept. Fish and Game, Regional Information Report No. 1J90-34. v + 27 pp. (AK AFC-77 part 3)

- Pacific Fishery Management Council. 1990a. Status of the Pacific Coast Groundfish Fishery through 1989 and Recommended Acceptable Biological Catches for 1990. Pacific Fishery Management Council Report. 304 pp. (WA 1-IJ-5; OR 1-IJ-3)
- Pacific Fishery Management Council. 1990b. Review of 1989 Ocean Salmon Fisheries. Pacific Fishery Management Council Report. 255 pp. (WA AFC-133; OR AFC-134)
- Pacific States Marine Fisheries Commission. 1990a. Interjurisdictional Fishery Management Plan for Thresher Shark. PSMFC Document (PSMFC 1-IJ-1)
- Pacific States Marine Fisheries Commission. 1990b. Final report on workshop series on options for Controlling Access in the Southeast Alaska Demersal Shelf Rockfish Longline Fishery. PSMFC Report. 16 pp. + (PSMFC 1-IJ-2)
- Pahlke, K.A. In preparation. Abundance, age, sex and size of chinook salmon catches and escapements in Southeast Alaska in 1989. Alaska Dept. Fish and Game, Division of Commercial Fisheries, Technical Fisheries Report. (AK 5-AFC-77 part 3)
- Rickey, M and J. Lai. 1990. (In press) Analysis of deep water complex species mix in the Washington and Oregon trawl fishery. Washington Dept. of Fisheries Tech. Report. No. 111:408 WA 1-IJ-5)
- Rowse, M.R. In preparation. Compilation of catch, escapement, age, sex and size date for salmon returns to the Yakutat area in 1989. Alaska Dept. Fish and Game, Division of Commercial Fisheries, Technical Fisheries Report. (AK 5-AFC-77 part 3)
- Rowse M.R., S.A. McPherson, and M.A. Olson. In preparation. Abundance, age, sex and size of sockeye salmon catches and escapements in Southeast Alaska in 1989. Alaska Dept. Fish and Game, Division of Commercial Fisheries, Technical Fisheries Report. (AK 5-AFC-77)
- Ruggerone, Gregory T. 1989. Coho salmon predation on juvenile sockeye salmon in the Chignik Lakes, Alaska. Ph.D Dissertation. University of Washington, Seattle. 151 pp. (AK 5-AFC-76)
- Ruggerone, Gregory T. and D.E. Rogers. (In Review). Predation of sockeye salmon fry by juvenile coho salmon in the Chignik Lakes, Alaska; implications for salmon management. North American Journal of Fisheries Management. (AK 5-AFC-78)
- Ruggerone, Gregory T. 1991. Chignik Salmon Studies: Evidence for Morphological and Behavioral Responses by Juvenile Sockeye Salmon to Size-Biased Predation. Fisheries Research Institute, University Washington Annual Report. FRI-UW-9107. iv + 18 pp. (AK 5-AFC-78)
- Scott, M.T. 1989. The Ohio River Fisheries Information System User's Manual. West Virginia Department of Natural Resources. Management Series No. 7. 50 pp. (WV 3-IJ-18).
- Schmidt, A.E. In press. A study of coho salmon in Southeast Alaska, 1989; Salmon Lake, Eagle River, St. John and Sinitsin Creeks. Alaska Dept. Fish and Game, Sport Fish Division, Fishery Data Service (AK 5-AFC-77 part 4)
- Shaul, L.D. 1990. Fishery Contributions, Escapement, Harvest Rates, Migratory Patterns and Survival Rates of Wild coho Salmon (*Oncorhynchus kisutch*) Stocks in Southeast Alaska Based on Coded-Wire Tagging Studies 1989-90. Alaska Dept. of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 1J90-18. viii + 36 pp. (AKR 5-AFC-77 part 4)
- Shaul, L.D. In press. Taku River Coho Salmon Investigations, 1989. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report. (AK 5-AFC-77 part 4)

- Suchanek, P.M. and A.E. Bingham. In press. Harvest estimates for selected sport fisheries in Southeast Alaska in 1989. Alaska Dept. of Fish and Game, Division of Sport Fish, Fishery Data Series. (AK 5-AFC-77 part 4)
- Tagart J. 1990 Population dynamics of yellowtail rockfish (Sebastes flavidus) stocks in the northern California to southwest Vancouver Island region. Ph.D. Dissertation, University of Washington, Seattle, WA (WA 1-IJ-5)
- Weidner, Earl, Robin Overstreet, Bruce Tedeschi, and John Fuseler. 1990. "Cytokeratin and Desmoplakin Analogues within an Intracellular Parasite." (2-IJ-2-2).
- Wood, D.S. In preparation. Abundance, age, sex and size of coho salmon catches and escapements in Southeast Alaska, 1989. Alaska Dept of Fish and Game, Division of Commercial Fisheries, Technical Fishery Report. (AK 5-AFC-77 part 2)

